

7.0 SCAQS VOLATILE ORGANIC COMPOUND SOURCE APPORTIONMENT

Section 6 explained the CMB model, its basic assumptions, and its applications and validation protocol. This section applies the protocol developed for PM₁₀ source apportionment to the apportionment of SCAQS VOCs, then performs the modeling and examines the source contributions.

7.1 CMB Application and Validation for VOC Source Apportionment

Though the CMB applications and validation protocol was originally developed for PM₁₀ source apportionment, it contains many general features which are applicable to the source apportionment of other pollutants. This is the first time that the CMB applications and validation protocol has been applied to VOC receptor modeling. Each of the seven steps is taken to its logical conclusion to determine the usefulness of the protocol in its current form. As part of this process, modifications and amplifications are identified which will allow this process to be generalized to the source apportionment of pollutants other than suspended particles.

7.1.1 CMB Model Applicability

VOC samples were taken by well-characterized methods during the SCAQS summer and fall campaigns. Extra care was taken to obtain a full range of chemical speciation. The importance of the C₂ species, which are not often resolved by conventional analyses, was noted in Section 3, and SCAQS data which did not attain this resolution were eliminated for CMB analysis.

All major ROG source types in the SoCAB have been identified, and profiles for these sources were assembled from published data. The potentially contributing source types are: 1) motor vehicle exhaust; 2) evaporated gasoline; 3) liquid gasoline which evaporates in air; 4) industrial and domestic solvents and degreasers; 5) architectural and industrial coatings; 6) natural gas; 7) liquefied petroleum gas; 8) biogenic emissions; and 9) geogenic emissions.

Section 5 noted that the VOC profiles for these source types are limited in that: 1) they were collected by various researchers over a period of many years and do not necessarily represent emissions in the SoCAB during 1987; 2) the profile species do not always correspond to the ambient species measured; 3) several species in the VOC profiles are expected to change with aging in the atmosphere; and 4) uncertainties are not reported.

These concerns echo those expressed by Javitz and Watson (1988) about the status for suspended particles. In fact, the data sets available for VOC receptor modeling are much better than those originally available for modeling of TSP, PM₁₀, and PM_{2.5} a decade ago, as demonstrated for the SoCAB in Section 2. The VOC modeling effort for SCAQS data provides

an opportunity to examine the value of existing data and to make some concrete recommendations to improve source and receptor data acquired in future studies.

Though the source profile data base is limited, several reasonable profiles have been identified in Section 5, and rational uncertainties have been assigned to them. Several of these profiles correspond to those used to speciate the SCAQS emissions inventory, so if they are not representative enough to explain the SCAQS VOC data by CMB source apportionment, they will certainly be inadequate for photochemical modeling of ROG emissions.

To evaluate the effects of some of these source profile limitations, several different VOC profiles have been selected for major source types (e.g., vehicle exhaust profile based on dynamometer studies of different fleets, data from a tunnel study) to determine the effects of alternative source profiles on the source contribution estimates and on overall model performance. These sensitivity tests were the basis for selecting the default set of source profiles that were used in the initial CMB model runs for all valid ambient samples. Reasonable uncertainty estimates were assigned to the profiles. The typical lifetimes of different organic compounds in the profiles were examined to determine which compounds might retain their relative abundances between source and receptor and which ones would not.

Given these precautions, the CMB receptor model is applicable to source apportionment of the SCAQS VOC data base.

7.1.2 Initial Source Contribution Estimates

Initial source contribution estimates were made to determine the optimal combination of source profiles and fitting species. As a prelude to actual CMB effective variance runs, the ambient data were examined by less complex tracer and bivariate regression receptor methods to select species which do not change their abundances between source and receptor.

Figure 7-1 shows scatterplots of acetylene, propane, isopentane, toluene, ethene, and propene versus carbon monoxide for all summer samples at all SCAQS sites except San Nicolas Island. Sampling times are indicated by different symbols and a separate linear regression line is plotted for each time period. Carbon monoxide is selected as the common independent variable because it is associated primarily with vehicle exhaust and it is relatively inert to chemical transformation in the atmosphere.

When exhaust is fresh and photochemical reactions are minimal, VOCs that have a vehicle exhaust origin should correlate with carbon monoxide and the regression slope should equal the emission rate ratio. Morning samples at most sites should be fresh owing to morning rush hour emissions and the lack of photochemistry. Afternoon samples, especially those in the eastern SoCAB, should have experienced significant photochemical changes. Non-reactive species in vehicle exhaust should have a constant slope for the three regression lines, while reactive species would have a lower slope in the afternoon.

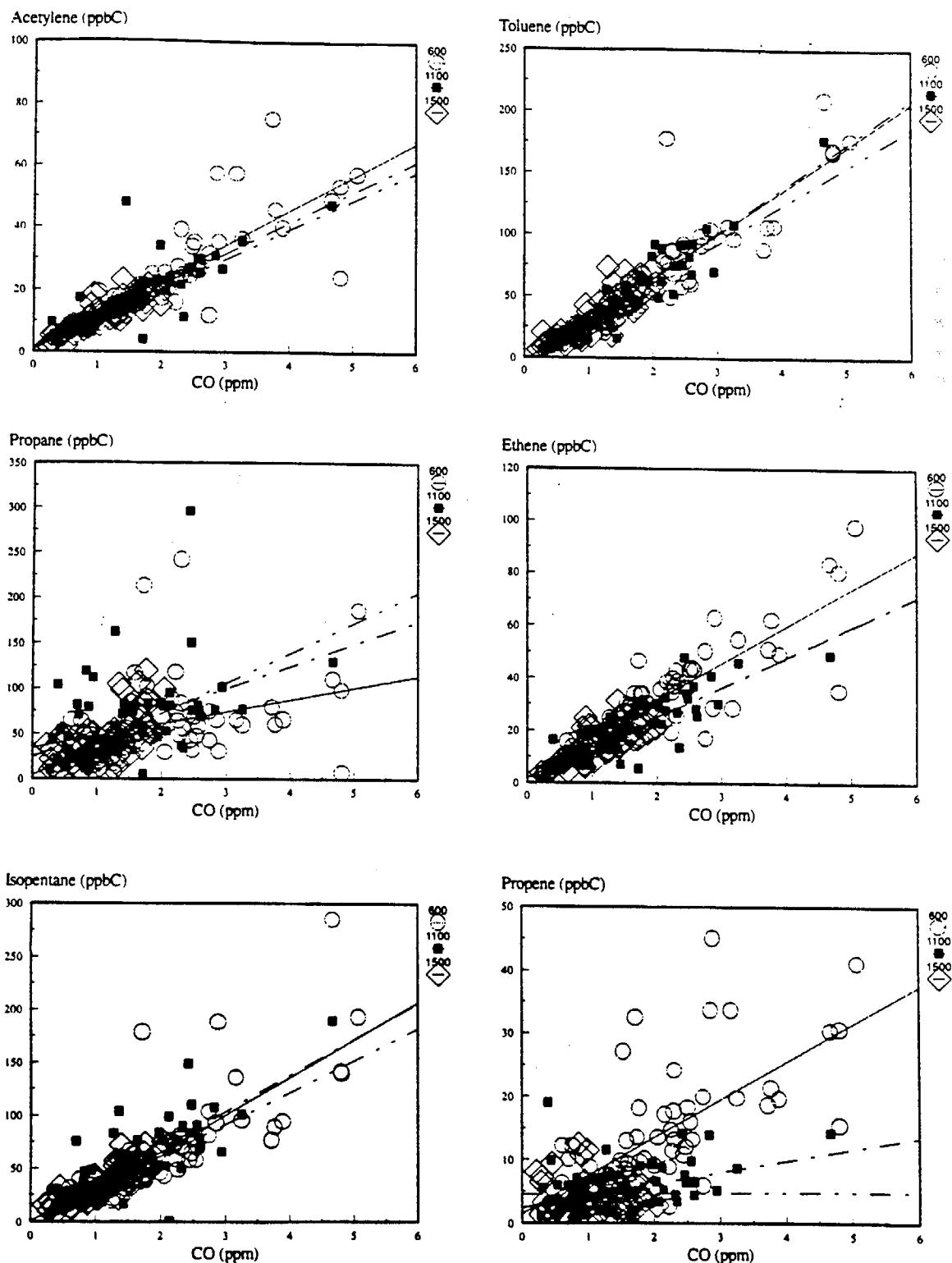


Figure 7-1. Scatterplots of Hydrocarbons Versus Carbon Monoxide by Sampling Period for All Valid Summer Samples

The six plots are arranged by decreasing VOC reactivity (Table 2-2) from upper left to bottom left then upper right to bottom right in Figure 7-1. In the absence of photochemical changes, the by-products of the combustion process in gasoline engines (e.g., acetylene, ethene, and propene) are expected to be highly correlated with carbon monoxide. This correlation is evident (excluding cases in which chemical reactions have occurred), though there is considerable scatter in the data which may be related to temporal and spatial variations in vehicle operation (e.g., free-flowing versus congested traffic, cold start versus stabilized), and non-exhaust contributors to these VOCs.

The abundances of combustion VOCs in vehicle exhaust vary more with vehicle speed and operating mode than do VOC abundances resulting from incomplete combustion (Bailey *et al.*, 1990). A portion of isopentane and toluene are products of incomplete combustion and evaporative running losses, and therefore associated with carbon monoxide in exhaust emissions. Isopentane and toluene also derive from evaporated gasoline, which would not have any relationship to carbon monoxide. However, toluene shows little scatter with respect to carbon monoxide, even though it is a major component in other source types such as architectural coatings. This provides some indication that toluene from coatings may not be a major contributor to SCAQS VOC samples. Propane is not a substantial component of gasoline or vehicle exhaust and shows no relationship with carbon monoxide.

The slopes of the morning, mid-day, and afternoon regression lines for the six VOCs are consistent with their relative lifetimes (Table 2-2). The plots indicate that hydrocarbons with reactivity equal to or less than toluene are good candidates for use as fitting species in the CMB analysis. Ethene is near the borderline and propene is clearly too reactive.

Ambient data were also examined to determine whether or not different profiles, or different mixtures of profiles, might be needed to explain the ambient measurements at different sampling sites. Tables 7-1a and 7-1b show the average ratios (ppbC/ppbC) of ethyne, ethene, propene, propane, isopentane, and toluene to NMHC by site and sampling time for the summer and fall campaigns. Average carbon monoxide and NMHC concentrations are also provided as indicators of motor vehicle and VOC concentration levels at each site and time of day. The sites are listed in the tables according to location from western to eastern part of the basin.

The tables show that the average ratios of ethyne, ethene, isopentane, and toluene to total NMHC are extremely constant both spatially and temporally. One interpretation of this consistency is that these VOCs are influenced throughout the SoCAB by a common source or set of sources. Since Section 5 shows that these species are most abundant in motor vehicle related emissions, it is likely that motor vehicles are the dominant sources.

The ambient ethyne/NMHC ratios, which range from approximately 2.5% to 3.5%, are generally consistent with the ethyne abundances in the motor vehicle exhaust profiles. However, the ambient ethene/NMHC ratios, which range from 3% to 4.5%, are about half the corresponding ethene abundances in the vehicle exhaust profiles reported in Section 5. Other contributions to ambient NMHC (e.g., gasoline evaporative emissions) could explain the lower

Table 7-1a
Mean CO, NMHC and Species Ratios by Site and Sampling Period During Summer SCAQS

Site	Time (PST)	CO (ppb)	NMHC (ppbC)	Ethyne/ NMHC	Ethene/ NMHC	Propene/ NMHC	Propane/ NMHC	Isopentane/ NMHC	Toluene/ NMHC
HAWT	600	1103	562	2.42%	3.72%	2.36%	10.80%	6.68%	5.60%
LBCC	600	1499	831	2.44%	3.78%	1.46%	8.25%	8.04%	6.03%
ANAH	600	1778	781	2.81%	4.08%	1.29%	7.15%	7.05%	6.51%
CELA	600	3119	1102	3.40%	4.28%	1.60%	5.69%	7.24%	7.97%
BURK	600	2943	1401	2.49%	3.54%	1.49%	8.32%	7.31%	7.97%
AZUS	600	1990	945	2.31%	3.47%	1.18%	6.97%	6.16%	8.68%
CLAR	600	2157	779	3.02%	4.24%	1.36%	6.24%	7.26%	8.12%
RIVR	600	2216	866	3.20%	3.82%	1.69%	6.28%	7.81%	7.21%
Mean	600	2101	908	2.76%	3.87%	1.55%	7.46%	7.19%	7.26%
HAWT	1100	477	359	2.78%	2.37%	1.77%	13.75%	7.14%	3.99%
LBCC	1100	1024	584	3.50%	2.95%	0.97%	14.23%	7.63%	5.49%
ANAH	1100	1006	398	2.62%	3.80%	1.08%	9.07%	7.08%	6.35%
CELA	1100	2597	1137	2.46%	2.89%	0.72%	7.07%	9.29%	7.80%
BURK	1100	2390	943	2.73%	3.25%	0.69%	9.41%	7.35%	8.56%
AZUS	1100	1449	621	2.74%	2.84%	0.57%	9.22%	7.92%	7.79%
CLAR	1100	1480	491	2.60%	3.06%	0.54%	7.58%	7.39%	7.04%
RIVR	1100	1058	360	2.60%	2.69%	0.51%	7.61%	8.89%	6.05%
Mean	1100	1435	612	2.75%	2.98%	0.86%	9.75%	7.84%	6.63%
HAWT	1500	315	229	1.92%	1.88%	2.51%	11.37%	7.17%	5.68%
LBCC	1500	853	341	2.86%	4.35%	1.84%	8.90%	6.42%	6.85%
ANAH	1500	1120	426	2.71%	3.74%	1.17%	8.88%	8.18%	6.32%
CELA	1500	1291	595	2.73%	3.41%	1.05%	4.75%	7.70%	7.79%
BURK	1500	1643	706	2.39%	2.91%	0.75%	9.37%	7.56%	8.13%
AZUS	1500	1494	614	2.83%	3.33%	0.59%	8.82%	6.97%	8.02%
CLAR	1500	1434	559	2.56%	2.95%	0.52%	11.16%	7.53%	6.61%
RIVR	1500	979	339	3.23%	2.56%	0.46%	10.15%	8.01%	6.14%
Mean	1500	1141	476	2.66%	3.14%	1.11%	9.18%	7.44%	6.94%

Table 7-1b
Mean CO, NMHC and Species Ratios by Site and Sampling Period During Fall SCAQS

Site	Time (PST)	CO (ppb)	NMHC (ppbC)	Ethyne/ NMHC	Ethene/ NMHC	Propene/ NMHC	Propane/ NMHC	Isopentane/ NMHC	Toluene/ NMHC
HAWT	700	8470	2899	3.39%	4.35%	2.20%	7.89%	7.41%	7.48%
LBCC	700	12345	4241	3.18%	4.38%	1.77%	4.15%	7.65%	7.44%
ANAH	700	3964	2108	3.45%	4.05%	1.51%	4.97%	6.56%	7.95%
CELA	700	9134	3453	3.37%	5.02%	2.00%	4.59%	6.55%	7.80%
BURK	700	7295	3080	3.65%	3.57%	1.49%	4.37%	7.41%	8.45%
RIVR	700	4839	1637	3.89%	4.84%	2.46%	5.17%	7.56%	7.29%
Mean	700	7674	2903	3.49%	4.37%	1.90%	5.19%	7.19%	7.74%
HAWT	1200	1875	977	2.34%	4.03%	1.20%	8.78%	8.00%	6.55%
LBCC	1200	2979	1035	2.69%	3.26%	0.90%	6.79%	8.11%	6.36%
ANAH	1200	2816	1072	2.91%	3.36%	0.90%	3.99%	9.49%	6.73%
CELA	1200	2782	1243	2.61%	3.86%	1.05%	10.04%	6.44%	8.19%
BURK	1200	3180	1134	3.23%	4.01%	0.96%	4.97%	8.07%	9.02%
RIVR	1200	767	312	2.64%	3.32%	1.11%	5.18%	8.06%	5.98%
Mean	1200	2400	962	2.74%	3.64%	1.02%	6.63%	8.03%	7.14%
HAWT	1600	965	512	2.24%	2.85%	0.92%	9.74%	6.33%	6.21%
LBCC	1600	2178	858	3.14%	4.06%	1.48%	5.63%	7.32%	6.80%
ANAH	1600	3654	1273	3.30%	4.23%	1.46%	4.65%	7.71%	7.31%
BURK	1600	4033	1731	2.69%	3.90%	1.17%	5.53%	7.30%	8.54%
RIVR	1600	1303	466	2.95%	3.80%	1.16%	6.55%	7.41%	7.41%
Mean	1600	2427	968	2.86%	3.77%	1.24%	6.42%	7.21%	7.25%

ambient ethene abundance. However, if this were true, the ambient ethyne abundances would also be lower relative to the ethyne abundances in the vehicle exhaust profiles. Since ambient and source profile ethyne/NMHC ratios agree, either the ethene contribution in the profile is too high or the ethene concentration in ambient air is too low.

The ambient isopentane/NMHC ratios are slightly higher than the isopentane abundance in vehicle exhaust profiles, while toluene/NMHC ratios are slightly lower. These differences are generally consistent with combined contributions of gasoline vapor and exhaust emissions to ambient concentrations. Propane abundances in NMHC are higher at the two western sites, Hawthorne and Long Beach, and in the eastern portion of the basin in the afternoon. Propene/NMHC ratios are more uniform throughout the basin during the morning period when photochemical activity is minimal and lower in the afternoon at eastern receptors where air masses have experienced substantial photochemical reactions.

Initial CMB fits, using a variety of source profile and fitting species combinations, were performed to determine the effects of alternative source profiles on the source contribution estimates and overall model performance. Though many tests were performed on samples from different sites at different times of the day, the sample from the Anaheim site on September 2, 1987 from 0600 to 0700 PST is examined here to illustrate the results of these tests. This sample had among the highest NMHC concentrations measured during the summer campaign.

Table 7-2 shows a CMB7 model output using the default source profiles and fitting species applied to SCAQS VOC data. Fitting species are shown in Table 7-2. The asterisk following the species mnemonic indicates that it was used in the fit. The mnemonics are related to the chemical species which they represent in Appendix D. Twenty-seven fitting species were used in this CMB analysis. Isoprene is the only hydrocarbon with greater reactivity than toluene, and it is included as a fitting species despite its high reactivity because it serves as a marker for biogenic emissions. The source contribution estimates underestimate the actual source contributions of biogenic emissions, i.e., they provide a lower limit to biogenic contributions.

The results of the sensitivity tests using different combinations of source profiles and fitting species are summarized in Tables 7-3 through 7-5. As anticipated from the evaluation of the ambient data, the source contribution estimates are sensitive to different motor vehicle exhaust profiles, and particularly to the abundances of ethyne and ethene (combustion by-products) relative to the abundances of species that are associated with uncombusted gasoline. Table 7-3 shows that exhaust profiles with higher ethyne abundances (relative to the base case) yield lower source contributions for exhaust and higher source contributions for liquid gasoline.

The performance measures indicate that the adjusted "Exh801a" (adjusted ARB MEDS) profile and the "ExhCT" (Caldecott Tunnel) profile provide the best fits to the ambient data. "Exh801a" was selected as the default profile for SCAQS VOC modeling because the bore in which the "ExhCT" tunnel samples were collected has a 4% upgrade. This is also the profile which best reflects the ROG speciation in the SCAQS emissions inventory. The source

Table 7-2
CMB Results for VOC Sample Collected at the Anaheim
Site on September 2, 1987 Between 0600 and 0700 PST

SOURCE CONTRIBUTION ESTIMATES - SITE: ANAH			DATE: 870902	CMB7 33889
SAMPLE DURATION	START HOUR	6	SIZE:	G
R SQUARE	.95	PERCENT MASS	102.5	
CHI SQUARE	2.40	DF	18	

SOURCE	TYPE	SCE(UG/M3)	STD ERR	TSTAT
02	Exh801a	755.2304	125.0990	6.0371
11	LGS709	342.5019	82.8851	4.1323
13	VGS710	187.0736	40.7345	4.5925
15	ACoat196	5.7649	3.2060	1.7982
17	Degrease	66.0253	10.9681	6.0198
19	Biogenic	2.2200	1.0205	2.1753
20	CNG	32.6012	17.7057	1.8413
21	GNG	81.4334	53.7794	1.5142
22	LPG	84.8331	22.0712	3.8436

MEASURED CONCENTRATION FOR SIZE: G
 1519.6-- 39.4

UNCERTAINTY/SIMILARITY CLUSTERS				CMB7 33889	SUM OF CLUSTER SOURCES
02	11	13	21	1366.239+-	64.769
02	11	13	21	1366.239+-	64.769
20	22			117.434+-	30.872
20	21	22		198.868+-	36.536

SPECIES CONCENTRATIONS - SITE: ANAH			DATE: 870902	CMB7 33889
SAMPLE DURATION	1	START HOUR	6	SIZE: G
R SQUARE	.95	PERCENT MASS	102.5	
CHI SQUARE	2.40	DF	18	

SPECIES-----	MEAS-----	CALC-----	RATIO C/M-----	RATIO R/U-----
NNHC	NNHCU T	39.43000	66.52579	1.03+- .05 .5
ETHANE	ETHANE	60.52000+-	6.06000 61.00040+-	5.90513 1.01+- .14 .1
ETHENE	ETHENE	35.20000+-	3.52000 74.76781+-	14.95930 2.12+- .48 2.6
ETHYNE	ETHYNE	30.40000+-	3.05000 20.99541+-	4.32470 .69+- .16 -1.8
PROPEN	PROPEN	23.53000+-	2.36000 27.96520+-	4.81967 1.19+- .24 .8
PROPAN	PROPAN	111.57000+-	11.16000 111.49880+-	12.02853 1.00+- .15 .0
IBUTAN	IBUTAN	37.36000+-	3.74000 36.70792+-	4.68583 .98+- .16 -.1
BUTANE	BUTANE	86.82000+-	8.69000 128.96190+-	15.19978 1.49+- .23 2.4
IPNTAN	IPNTAN	113.32000+-	11.33000 107.01960+-	12.13183 .94+- .14 -.4
PENTAN	PENTAN	68.32000+-	6.84000 46.22354+-	4.90366 .68+- .10 -2.6
ISOPRN	ISOPRN	1.22000+-	.32000 2.22000+-	.96907 1.00+- .46 .0
X2MPTA	X2MPTA	37.11000+-	3.72000 30.11389+-	3.65713 .81+- .13 -1.3
X23MBT	X23MBT	9.50000+-	.98000 10.20431+-	1.61716 1.07+- .20 .4
X3MPTA	X3MPTA	23.10000+-	2.32000 21.47190+-	2.70210 .93+- .15 -.5
BENZEN	BENZEN	36.19000+-	3.62000 37.41478+-	6.13734 1.03+- .20 .2
HEXANE	HEXANE	24.09000+-	2.42000 19.55310+-	2.20884 .81+- .12 -1.4
X2MHDX	X2MHDX	13.61000+-	1.38000 14.24730+-	1.09968 1.05+- .19 .3
C4OLF	C4OLFU	10.42000+-	1.06000 .00000+-	.86137 .00+- .08 -7.6
X13BTD	X13BTD	4.53000+-	.50000 .00000+-	.86137 .00+- .19 -4.5
BUTENE	BUTENE	-99.00000+-	-99.00000 6.49498+-	1.56623 .00+- .00 1.1
T2BUTE	T2BUTE	3.38000+-	.41000 5.16555+-	1.12047 1.53+- .38 1.5
C2BUTE	C2BUTE	3.38000+-	.41000 7.42661+-	1.30930 2.20+- .47 2.9
X3MBT1	X3MBT1	1.26000+-	.16000 3.16733+-	.94122 2.51+- .91 2.0
PNTEN1	PNTEN1	4.18000+-	.48000 5.39516+-	1.09301 1.29+- .30 1.0
X2M1BT	X2M1BT	5.38000+-	.38000 8.41342+-	1.39026 1.56+- .31 2.0
T2PNT1	T2PNT1	6.47000+-	.69000 8.75359+-	1.32323 1.35+- .25 1.5
C2PNT1	C2PNT1	3.66000+-	.43000 4.79375+-	1.00913 1.31+- .32 1.0
CH2CL2	CH2CL2	9.36000+-	1.66000 .00000+-	.86137 .00+- .09 -5.0
FRN113	FRN113	19.98000+-	1.92000 13.20506+-	2.77715 .70+- .16 -1.7
X22MBT	X22MBT	2.46000+-	.34000 5.90226+-	1.33750 3.62+- .74 4.7
C6OLF1	C6OLF1	.40000+-	.23000 .00000+-	.86137 .00+- 2.15 -.4
C6OLF2	C6OLF2	.118000+-	.31000 .00000+-	.86137 .00+- .40 -2.4
CYPNTA	CYPNTA	6.41000+-	.68000 4.11557+-	1.00397 .64+- .17 -1.9
C7OLF1	C7OLF1	.00000<	.13000 .00000<	.86137 .00< .00 .0
X2M2PT	X2M2PT	2.69000+-	.35000 2.03912+-	.92830 .76+- .36 -.7
C7OLF2	C7OLF2	.30000<	.13000 .00000<	.86137 .00< .00 .0
X3M2PT	X3M2PT	.30000<	.13000 .00000<	.86137 .00< .00 .0

Table 7-2 (continued)
CMB Results for VOC Sample Collected at the Anaheim
Site on September 2, 1987 Between 0600 and 0700 PST

MCPNTA MCPNTA	25.13000+-	2.52000	19.76884+-	2.40224	.79+-	.12	-1.5
X24MPT X24MPT	7.30000+-	.77000	10.67445+-	.67725	1.46+-	.28	1.8
TCLETA TCLETA	8.97000+-	.93000	13.20506+-	2.77719	1.47+-	.35	1.4
X33MPT X33MPT	.06000<	.23000	2.60646<	.98167	43.44< ***	***	2.5
CHEXAN CHEXAN	5.78000+-	.62000	6.46271+-	1.10582	1.12+-	.23	.5
X23MPT X23MPT	10.46000+-	.07000	12.48788+-	.87713	1.19+-	.22	.9
X3MMXA X3MMXA	15.37000+-	1.55000	21.27676+-	2.63643	1.38+-	.22	1.9
C7PAR1 C7PAR1	5.90000+-	.64000	.00000+-	.86137	.00+-	.15	-5.5
C7PAR2 C7PAR2	7.13000+-	.75000	.00000+-	.86137	.00+-	.12	-6.2
X224MP X224MP	22.79000+-	2.29000	22.80791+-	4.47650	1.00+-	.22	.0
HEPTAN HEPTAN	13.67000+-	1.38000	14.05780+-	1.95171	1.03+-	.18	.2
C8OLF1 C8OLF1	1.15000+-	.26000	.00000+-	.86137	.00+-	.75	-1.3
MCHEXA MCHEXA	12.14000+-	1.24000	10.14829+-	1.46705	.04+-	.15	-1.0
C8PR2A C8PR2A	2.16000+-	.31000	.00000+-	.86137	.00+-	.40	-2.4
X234MP X234MP	6.06000+-	.65000	1.28389+-	.92830	.21+-	.15	-4.2
TOLUEN TOLUEN	95.19000+-	9.52000	91.79010+-	12.99395	.96+-	.17	-.2
C9PAR2 C9PAR2	2.33000+-	.33000	.00000+-	.86137	.00+-	.37	-2.5
X2MMPT X2MMPT	5.25000+-	.57000	5.30997+-	1.07668	1.01+-	.23	.0
X3MMPT X3MMPT	4.95000+-	.55000	4.15377+-	1.20621	.84+-	.26	-.6
X225MH X225MH	2.38000+-	.33000	5.73975+-	1.42113	2.41+-	.68	2.3
CHEPTA CHEPTA	1.03000+-	.25000	.00000+-	.86137	.00+-	.84	-1.1
OCTANE OCTANE	5.19000+-	.57000	7.42853+-	1.26524	1.43+-	.29	1.6
C9PAR2 C9PAR2	1.74000+-	.29000	.00000+-	.86137	.00+-	.50	-1.9
X25MHP X25MHP	1.63000+-	.29000	1.05732+-	.86137	.65+-	.54	-.6
C9PAR3 C9PAR3	.00000<	.23000	.00000<	.86137	.00<	.00	.0
C9PAR6 C9PAR6	.35000+-	.23000	.00000+-	.86137	.00+-	2.46	-.4
ETBZM ETBZM	16.30000+-	1.65000	13.16473+-	1.99971	.81+-	.15	-1.2
MPXYLN MPXYLN	63.75000+-	6.38000	55.22026+-	7.79554	.87+-	.15	-.8
X4MOCT X4MOCT	2.73000+-	.36000	.00000+-	.86137	.00+-	.32	-2.9
X3MOCT X3MOCT	2.21000+-	.32000	2.22000+-	.86137	1.00+-	.42	.0
STYREN STYREN	12.06000+-	1.22000	.00000+-	.86137	.00+-	.07	-8.1
OXYLEN OXYLEN	21.83000+-	2.19000	27.97226+-	4.15130	1.28+-	.23	1.3
NONEN1 NONEN1	.00000<	.23000	.00000<	.86137	.00<	.00	.0
C9PAR7 C9PAR7	.47000+-	.24000	.00000+-	.86137	.00+-	1.83	-.5
NONANE NONANE	2.56000+-	.34000	4.25922+-	1.36750	1.66+-	.47	1.5
C10PRI C10PRI	.64000+-	.24000	.00000+-	.86137	.00+-	1.35	-.7
C10PR2 C10PR2	.00000<	.23000	.00000<	.86137	.00<	.00	.0
C10PR3 C10PR3	.3.02000+-	.38000	.00000+-	.86137	.00+-	.29	-3.2
NPRBNZ NPRENZ	3.82000+-	.44000	7.09485+-	1.40236	1.86+-	.42	2.2
METOLN METOLN	15.37000+-	1.55000	21.66056+-	3.19317	1.41+-	.25	1.8
PETOLN PETOLN	7.25000+-	.76000	.00000+-	.86137	.00+-	.12	-6.3
C9ARH1 C9ARH1	4.63000+-	.22000	.00000+-	.86137	.00+-	.19	-5.2
C9AR18 C9AR18	.00000<	.22000	.00000<	.86137	.00<	.00	.0
C10PR4 C10PR4	3.08000+-	.38000	.00000+-	.86137	.00+-	.28	-3.3
DETOLN DETOLN	6.43000+-	.68000	6.07529+-	1.21357	.94+-	.21	-.3
X124MB X124MB	23.38000+-	2.35000	37.10017+-	5.56234	1.59+-	.29	2.3
DECANE DECAHE	1.28000+-	.27000	1.93465+-	.94148	1.31+-	.80	.7
TCLETN TCLETN	.00000<	1.07000	.00000<	.86137	.00<	.00	.0
CGALNA CGALNA	.00000<	.23000	.00000<	.86137	.00<	.00	.0
C10ARI1 C10ARI1	6.90000+-	.72000	.00000+-	.86137	.00+-	.12	-6.1
UNIDTO UNIDTO	297.10000+-	29.71000	304.94580+-	37.78721	1.03+-	.16	.2
FORMAL FORMAL	16.55000+-	1.73000	.00000+-	.00000	.00+-	.00	-9.6
ACETAL ACETAL	12.23000+-	1.28000	.00000+-	.00000	.00+-	.00	-9.6
ACETON ACETON	36.03000+-	3.62000	.00000+-	.00000	.00+-	.00	-10.0
PRFHAL PRFHAL	3.08000+-	.44000	.00000+-	.00000	.00+-	.00	-7.0
MEK MEKU	12.36000+-	1.27000	.00000+-	.00000	.00+-	.00	-9.7
BTANAL BTANAL	3.24000+-	.43000	.00000+-	.00000	.00+-	.00	-7.5
PTANAL PTANAL	6.68000+-	.72000	.00000+-	.00000	.00+-	.00	-9.3
C5CBNL C5CBNL	2.81000+-	.40000	.00000+-	.00000	.00+-	.00	-7.0
C6CBNL C6CBNL	10.63000+-	1.10000	.00000+-	.00000	.00+-	.00	-9.7
C7CBNL C7CBNL	1.86000+-	.33000	.00000+-	.00000	.00+-	.00	-5.6

Table 7-3
Sensitivity of CMB Results to Exhaust Profiles (Anaheim, 9/2/87 at 0600 PST)

Source Profile	Base	1	2	3	4	5	6
Exh801		624.4 ± 113.7					
Exh801a	755.2 ± 125.1						
ExhCT		711.2 ± 97.1					
ExhCS564				429.1 ± 84.6	452.3 ± 74.6		
ExhSS565				31.7 ± 50.1			
ExhHS566			417.0 ± 67.2				
AOCcomp						-54.5 ± 53.9	
AODium						407.6 ± 117	
AOHSoak							
AORunLs							
LGST09	342.5 ± 82.9	455.6 ± 78.1	342.1 ± 71.2	471.8 ± 70.0	476.8 ± 70.6	470.6 ± 70.2	
LGW729							
VGST10	187.1 ± 40.7	197.0 ± 40.7	189.4 ± 38.6	185.3 ± 38.6	209.4 ± 42.6	222.8 ± 39.4	
VGW730							
ACoat196	5.8 ± 3.2	-9.2 ± 6.4	3.0 ± 3.1	4.5 ± 3.0	7.1 ± 3.2	7.2 ± 3.2	7.6 ± 3.1
ICoast783							
Degrease	66.0 ± 11.0	65.9 ± 10.9	66.0 ± 10.9	70.4 ± 11.3	68.2 ± 11.1	68.1 ± 11.1	83.6 ± 12.8
DryClean							
Biogenic	2.2 ± 1.0	2.2 ± 1.0	2.2 ± 1.0	1.3 ± 0.8	2.2 ± 0.9	2.2 ± 0.9	1.1 ± 0.9
CNG	32.6 ± 17.7	42.2 ± 17.7	56.6 ± 17.0	28.3 ± 17.7	33.0 ± 18.6	38.4 ± 17.0	-23.0 ± 21.8
GNG	81.4 ± 53.8	66.1 ± 53.8	71.9 ± 51.3	102.2 ± 51.1	125.0 ± 51.7	123.2 ± 51.8	331.4 ± 46.6
LPG	84.8 ± 22.1	71.8 ± 21.3	82.6 ± 21.5	82.5 ± 21.6	75.6 ± 21.4	74.6 ± 21.3	33.0 ± 22.3
R-Square	0.95	0.93	0.96	0.94	0.94	0.94	0.88
Chi-Square	2.40	3.62	2.12	2.96	3.11	2.90	6.01
Percent Mass	102.5	99.8	100.4	89.7	96.0	96	84.8

Table 7-4
Sensitivity of CMB Results to Gasoline and Other Vapor Profiles (Anaheim, 9/2/87 at 0600 PST)

Source Profile	Base	1	2	3	4	5	6	7
Exh801a	755.2 ± 125.1	891.0 ± 135.3	730.1 ± 124.0	753.0 ± 126.3	767.5 ± 127.6	721.6 ± 123.5	980.8 ± 131.2	749.3 ± 118.2
ExhCT								
ExhCS564								
ExhSt565								
ExhHS566								
AOCComp		-6.4 ± 55.1						
AOBurn		285.2 ± 105.6						
AOHSoak								
AORunLs								
LGS709	342.5 ± 82.9		378.8 ± 82.0	341.2 ± 41.9	377.6 ± 81.4	388.5 ± 79.8	272.7 ± 82.3	271.9 ± 73.3
LGW729		196.8 ± 42.1	188.2 ± 41.9	217.7 ± 38.5	238.9 ± 39.7	206.0 ± 39.5	127.9 ± 35.7	
VGS710	187.1 ± 40.7							
VGW730								
ACoat196	5.8 ± 3.2	7.2 ± 3.4		5.8 ± 3.2	5.1 ± 3.2	4.9 ± 3.2	5.8 ± 3.5	7.0 ± 3.2
ICoat783			3.5 ± 25.8	2.4 ± 25.5				
Degrease	66.0 ± 11.0	67.8 ± 11.3	65.9 ± 11.0	66.1 ± 11.0	65.7 ± 11.0	65.9 ± 11.0	65.4 ± 11.1	66.6 ± 11.0
DryClean								
Biogenic	2.2 ± 1.0	2.2 ± 1.1	2.2 ± 1.0	2.2 ± 1.0	2.2 ± 1.0	2.2 ± 1.0	2.2 ± 1.2	2.2 ± 1.0
CNG	32.6 ± 17.7	-4.8 ± 18.3	36.9 ± 17.7	32.7 ± 17.8	50.0 ± 14.4	100.8 ± 18.1		
GNG	81.4 ± 53.8	241.3 ± 50.5	66.0 ± 53.6	81.2 ± 53.8				244.5 ± 34.0
LPG	84.8 ± 22.1	51.4 ± 21.6	88.0 ± 22.3	84.8 ± 22.1	102.6 ± 20.4		121.7 ± 22.0	
R-Square	0.95	0.93	0.95	0.95	0.95	0.89	0.88	0.94
Chi-Square	2.40	3.45	2.56	2.54	2.26	4.89	6.01	3.08
Percent Mass	102.5	101.0	103.2	102.5	104.5	100.2	84.8	96.7

Table 7.5
Sensitivity of CMB Results to Fitting Species (Anaheim, 9/2/87 at 0600 PST)

Source Profile	Base	+ ethene	- ethene	+ ethyne	- ethyne	+ toluene	- toluene
Exh801							
Exh801a	755.2 ± 125.1	587.3 ± 82.9	402.2 ± 75.5	517.8 ± 150.6	752.0 ± 125.7		
ExhCT							
ExhCS564							
ExhSI565							
ExhIS566							
AOComp							
AODiurn							
AOHSouk							
AORunls							
LCG709	342.5 ± 82.9	434.9 ± 68.2	548.7 ± 68.8	475.0 ± 98.5	339.7 ± 83.2		
LGW729							
VCG710	187.1 ± 40.7	201.8 ± 39.7	217.1 ± 40.3	207.9 ± 41.4	187.6 ± 40.7		
VGW730							
ACoat196	5.8 ± 3.2	5.0 ± 3.1	4.1 ± 3.1	4.7 ± 3.1	5.8 ± 3.2		
ICast783							
Degrease	66.0 ± 11.0	66.4 ± 10.9	66.7 ± 10.9	66.5 ± 10.9	66.1 ± 11.0		
DryClean							
Biogenic	2.2 ± 1.0	2.2 ± 0.9	2.2 ± 0.9	2.2 ± 0.9	2.2 ± 1.0		
CNG	32.6 ± 17.7	40.3 ± 17.1	49.1 ± 17.3	43.4 ± 17.9	32.2 ± 17.7		
GNG	81.4 ± 53.8	77.3 ± 52.3	71.0 ± 53.3	75.8 ± 52.3	83.8 ± 54.7		
LPG	84.8 ± 22.1	84.6 ± 21.8	84.8 ± 22.0	84.5 ± 21.8	84.3 ± 22.2		
R-Square	0.95	0.94	0.96	0.96	0.95		
Chi-Square	2.40	2.75	2.15	2.29	2.54		
Percent Mass	102.5	98.7	95.2	97.3	102.2		

contribution estimates from both the "Exh801a" and "ExhCT" profiles are similar for most samples, however.

When the "AOHSoak" (Auto/Oil hot soak) and "AOHdiurn" (Auto/Oil diurnal evaporation) profiles are substituted for liquid gasoline and gasoline vapor, nearly half of the mass originally attributed to the two gasoline source profiles is attributed in approximately equal portions to motor vehicle exhaust and geogenic natural gas as shown in Table 7-4. These results demonstrate that there is significant, but tolerable collinearity among the profiles for vehicle exhaust, gasoline, and geogenic natural gas. The "AOHdiurn" profile caused model performance measure to deteriorate, and it was not included in subsequent tests.

The source contributions for architectural and industrial coatings were detectable, but negligible. Most of the ambient toluene, which is a major constituent in these profiles, derives from motor vehicle exhaust. Using commercial natural gas, geogenic natural gas, and liquefied petroleum gas together provides better model performance than any one of the profiles alone. The individual source contributions from the three gas profiles should be combined since they all contain ethane and propane as the main non-methane species and are often collinear with each other. The combined source can be interpreted as an ethane and propane-enriched source, which is probably some mixture of different types of gas leaks.

Table 7-5 summarizes the sensitivity tests which examine the effects of adding or subtracting species from the CMB fit. Since ethene is a combustion product, adding it to the fit has the same effect as using vehicle profiles with higher fractions of acetylene: the contribution of vehicle exhaust is reduced and reassigned to liquid gasoline. As mentioned earlier, the ambient ethene/NMHC ratios are about half the corresponding ratios in the vehicle exhaust profiles while the ambient ethyne/NMHC ratios are consistent with the exhaust profiles. Since ethene is over-represented in the profile relative to ethyne, retaining ethene in the fit and removing ethyne increases the shift in the source apportionment to liquid gasoline. Removing toluene from the fit has no effect on the source contributions.

As a result of the sensitivity tests, the following default set of source profiles was applied in the first CMB model application to each ambient sample: 1) "Exh801a" - vehicle exhaust using the adjusted ARB MEDS profile number 801; 2) "LGS709" and "LGW729" - liquid gasoline using the updated ARB MEDS profile number 709 for the summer samples and profile number 729 for the fall samples; 3) "VGS710" and "VGW730" - gasoline vapor using the updated ARB MEDS profile number 710 for the summer samples and number 730 for the fall samples; 4) "Acoat196" - architectural coating using ARB MEDS profile number 196; 5) "Degrease" - degreasing solvents using ARB MEDS profile number 515; 6) "DryClean" - dry cleaning solvents using ARB MEDS profile number 516; 7) "CNG" - commercial natural gas; 8) "GNG" - geogenic natural gas; 9) "LPG" - liquefied petroleum gas; and 10) "Unid" - unidentified. The default fitting species are designated by asterisks in Table 7-2.

7.1.3 Model Outputs and Performance Measures

The model performance measures are described in Section 6, and these were individually examined for each CMB fit to the ambient data. In particular, the mass percent of total NMHC mass was monitored closely to determine the potential for over- or under-prediction by the source contribution estimates. Negative contributions were usually found to be collinear with other profiles and to be less than their standard errors. This was often the case for the "CNG", "GNG", and "LPG" profiles.

The CHI-SQUARE and ratios of calculated to measured concentrations were then examined to determine how well the model-calculated concentrations reproduced the ambient concentrations. In general, these comparisons were good. In a few cases where a fitting species was suspected of biasing the fit, it was removed and the source contribution estimates were recalculated. Very seldom did this removal result in the change of a source contribution estimate by more than one standard error.

7.1.4 Deviations from CMB Model Assumptions

The CMB model assumptions are listed in Section 6, and the extent to which they are met for VOC ambient data and source profiles is discussed here.

With respect to the consistency of source profiles, the previous analyses have shown which species retain their abundances between source and receptor and which ones do not. Only stable species are used as fitting species. Tables 7-3 to 7-5 show that the source contribution estimates are not overly sensitive to different profiles which represent the same source, and each profile provides acceptable performance measures. Profiles which do not represent emissions in the SoCAB are clearly evident when performance measures deviate substantially from their target values.

With respect to Assumption 2 concerning the reactions of different species with each other, only those species with lifetimes comparable to air mass residence times are used as fitting species.

With respect to Assumption 3 involving the inclusion of all source types, it appears from the PERCENT MASS performance measures that all of the significant contributors have been included in the CMBS. The "Unid" fraction just accounts for those parts of the NMHC in the ambient sample which are labeled as "unidentified." This accounting is carried through the model so that the frequencies and magnitudes of the "unidentified" NMHC can be examined relative to the other source contribution estimates. It is impossible for the CMB model to extract interpretation from this "unidentified" fraction until it is further resolved into specific compounds or compound groupings by chemical analysis.

With respect to Assumption 4 concerning number of species and number of sources, 27 VOCs and up to 9 source profiles were used in each calculation. The number of chemical species always exceeded the number of source types.

With respect to Assumption 5 concerning collinearity, the initial source contribution estimates show the potential for collinearity among the "GNG", "CNG", and "LPG" profiles. Uncertainty/Similarity Clusters (U/S CLUSTERS) defined by Watson *et al.* (1991b) and based on the methods of Henry (1982; 1992) often appeared during the analyses which grouped together two or more of the "Exh801a", "LGS709", and "VGS710" profiles. The U/S CLUSTERS do not necessarily mean that profiles are collinear -- they really mean that the standard error assigned to a category representing the profiles in the clusters might be lower than the standard errors assigned to the individual source contribution estimates associated with each profile. Though the standard errors for these source types often approach 30% of the source contribution estimate, indicating collinearity uncertainty in addition to propagated analytical uncertainty, all three vehicle profiles were usually retained so that temporal and spatial variations in their contributions could be examined.

As is the case for suspended particulate matter, the effects of deviations from Assumption 6 on the randomness and normality of measurement errors remain to be studied. For this study, all of the CMB assumptions are met to the extent that the source contribution estimates can be considered valid.

7.1.5 Identification and Correction of Model Input Errors

The thorough analysis and validation of Lurmann and Main (1992) was used in calculating the VOC source apportionments. In cases where Lurmann and Main (1992) had identified certain chemical compounds as suspicious, individual sensitivity tests were conducted to determine the effect of including or removing these species from the CMB fit. In general, the CMB modeling was robust enough that, when performance measures were within acceptable ranges around target values, there was little effect of suspect concentrations on the source contribution estimates.

7.1.6 Consistency and Stability of Source Contribution Estimates

Over 350 separate CMBs were performed on the SCAQS VOC samples. The source contribution estimates and the statistics and diagnostic information were reviewed to determine the validity of the initial model results. The analysis was repeated by eliminating sources profiles that gave negative source contribution estimates or standard errors which exceed the source contribution estimates.

Figure 7-2 shows the correspondence between the sum of the individual calculated source contributions and the measured ambient NMHC for each of the three sampling periods (starting

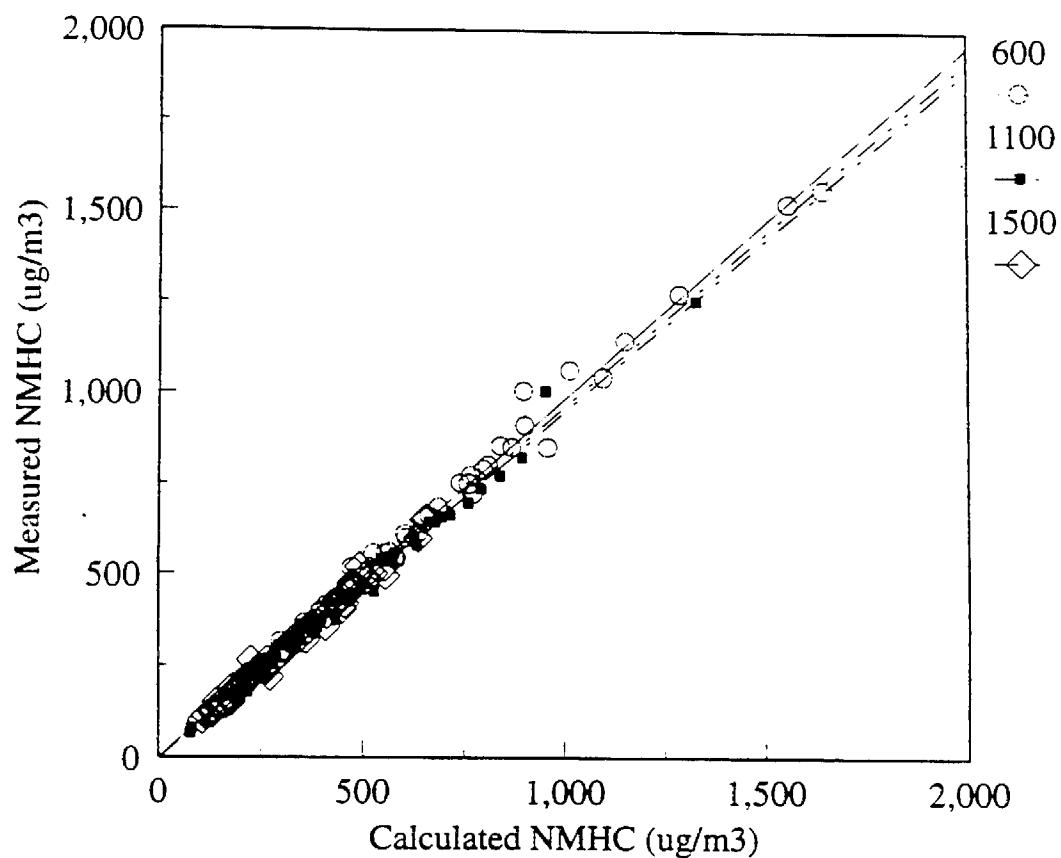


Figure 7-2. Scatterplots of Total NMHC Mass Concentrations Calculated by CMB Versus Measured Mass Concentrations

0600, 1100, and 1500 PST for the summer campaign). The excellent agreement indicates that all major source types were included in the calculations, that ambient and source profile measurements are reasonably accurate, and that the source profiles are reasonably representative of actual emissions. Figure 7-3 compares calculated and measured concentrations for acetylene, isopentane, toluene, and m&p-xylene. Like Figure 7-1, the plots contain three separate regression lines for the 0600, 1100, and 1500 PST sampling periods at eight SCAQS sites during the summer campaign (excluding data from San Nicolas Island). The plots are arranged by increasing VOC reactivity from top to bottom and left to right. Recall that the reactive species were not used as fitting species, so their ambient concentrations had no effect on the CMB-calculated concentrations.

The ratios between calculated and measured concentrations remain constant for the three time periods for non-reactive species, and the concentrations predicted by CMB for reactive species, such as meta- and para-xylene, exceed measured values for the mid-day and afternoon samples. They are in good agreement for the morning samples. The good agreement during the morning for concentrations which were not included in the fit shows that the solutions to the CMB equations with other fitting species are fairly consistent and stable.

7.1.7 Reconciliation with Other Source Apportionment Methods

Other source apportionment methods have not been applied to the SCAQS VOC data, so this step cannot be completed until additional receptor modeling and emissions inventory efforts have been completed.

7.2 Source Contribution Estimates

Summaries of the CMB results for each of the valid samples are given in Appendix C. Figures 7-4a to 7-4d and 7-5a to 7-5c summarize the individual source apportionments at each sampling site for the summer and fall campaigns. These plots include all of the source types used in the CMB fit. The bar labelled unexplained is the difference between measured and calculated NMHC. The uncertainties associated with each apportionment are reported in Appendix C, but not shown in these figures. Appendix C must be consulted to obtain these uncertainties when source contribution estimates are to be used quantitatively.

During SCAQS, the major contributors to NMHC at all sites were: 1) vehicle exhaust; 2) liquid gasoline; 3) gasoline vapor; and 4) natural gas and propane gas. What these profiles actually represent is open to some interpretation. In this study, vehicle exhaust represents the mix of NMHC that resembles the composite FTP exhaust emissions for a vehicle fleet consisting of 1975 to 1982 model year vehicles. Exhaust emissions are actually a mixture of hydrocarbons produced during combustion along with unburned gasoline resulting from incomplete combustion. Liquid gasoline represents the additional unburned gasoline (due to misfiring and other engine malfunctions) that is not included in the exhaust profile, plus

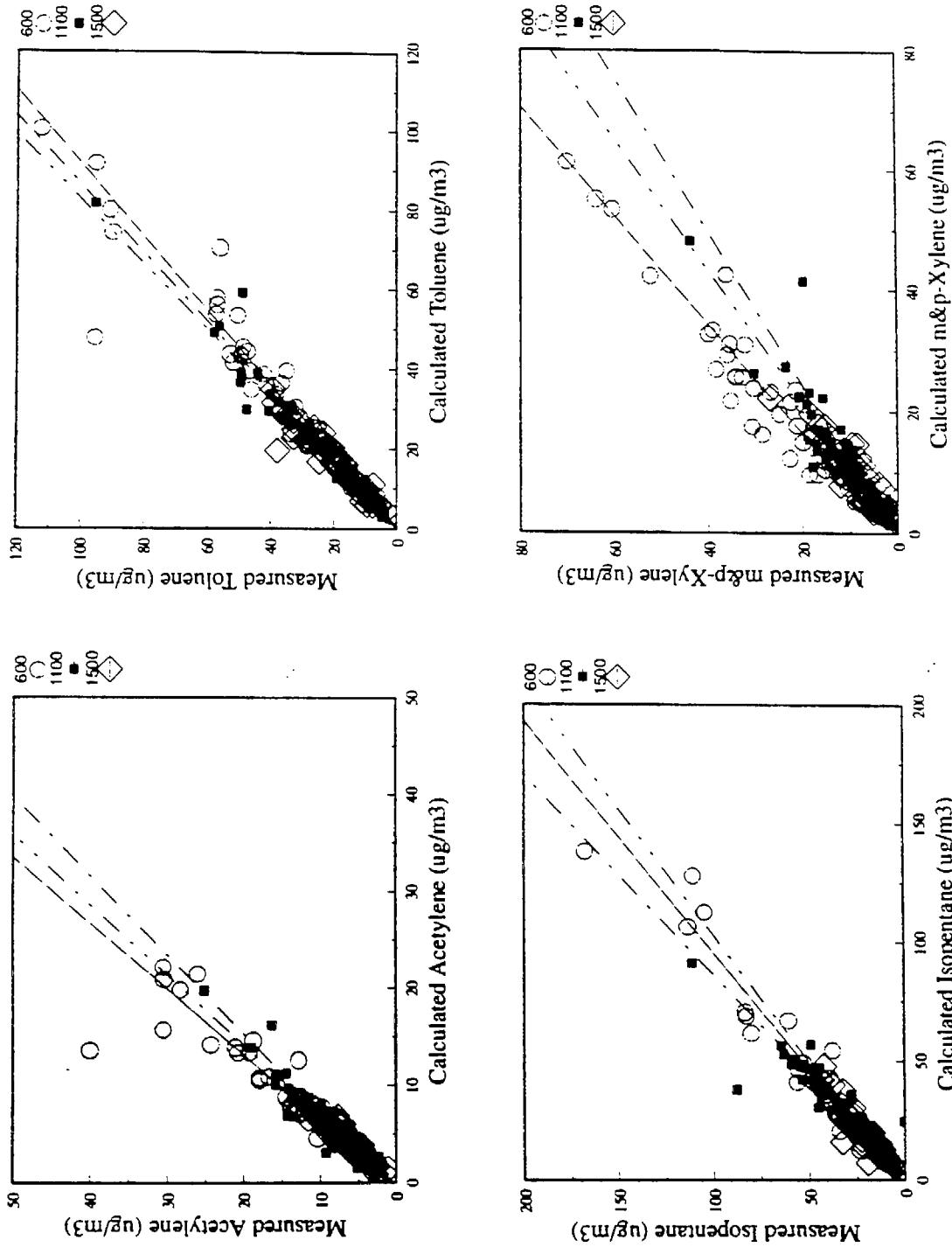


Figure 7-3. Scatterplots of Calculated Versus Measured Hydrocarbon Mass Concentrations

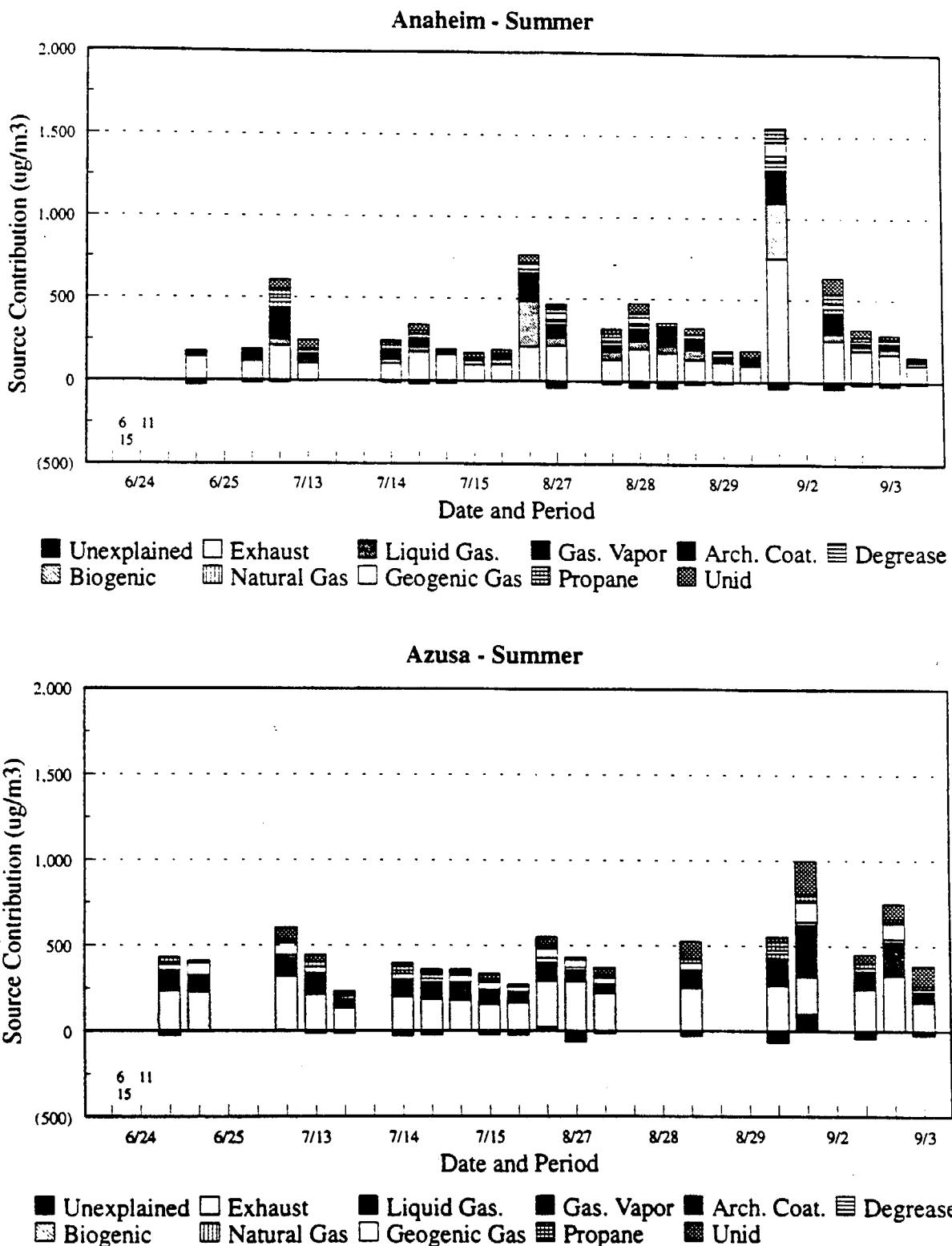


Figure 7-4a. NMHC Source Contribution Estimates at the Anaheim and Azusa Sites During the Summer Campaign

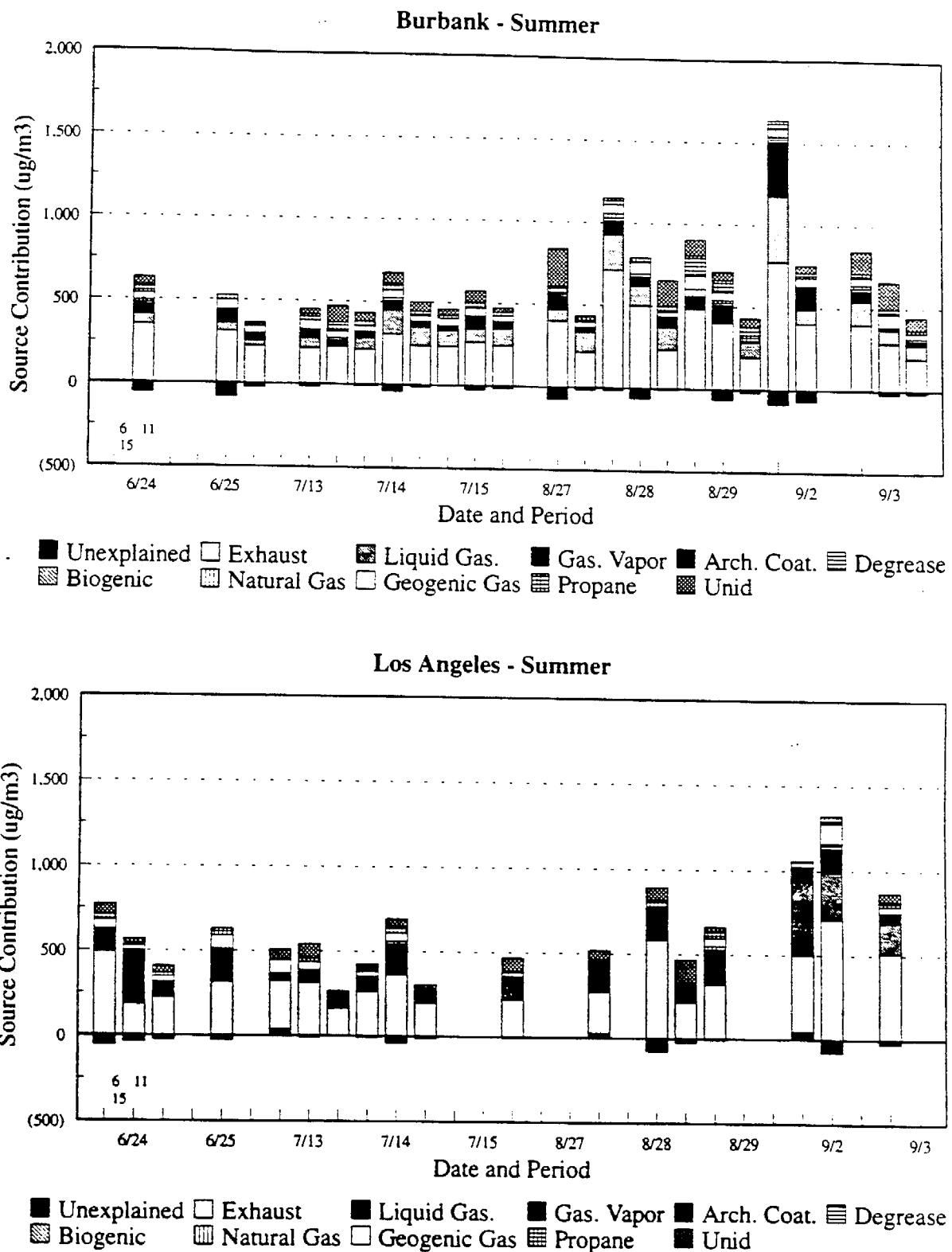


Figure 7-4b. NMHC Source Contribution Estimates at the Burbank and Los Angeles Sites During the Summer Campaign

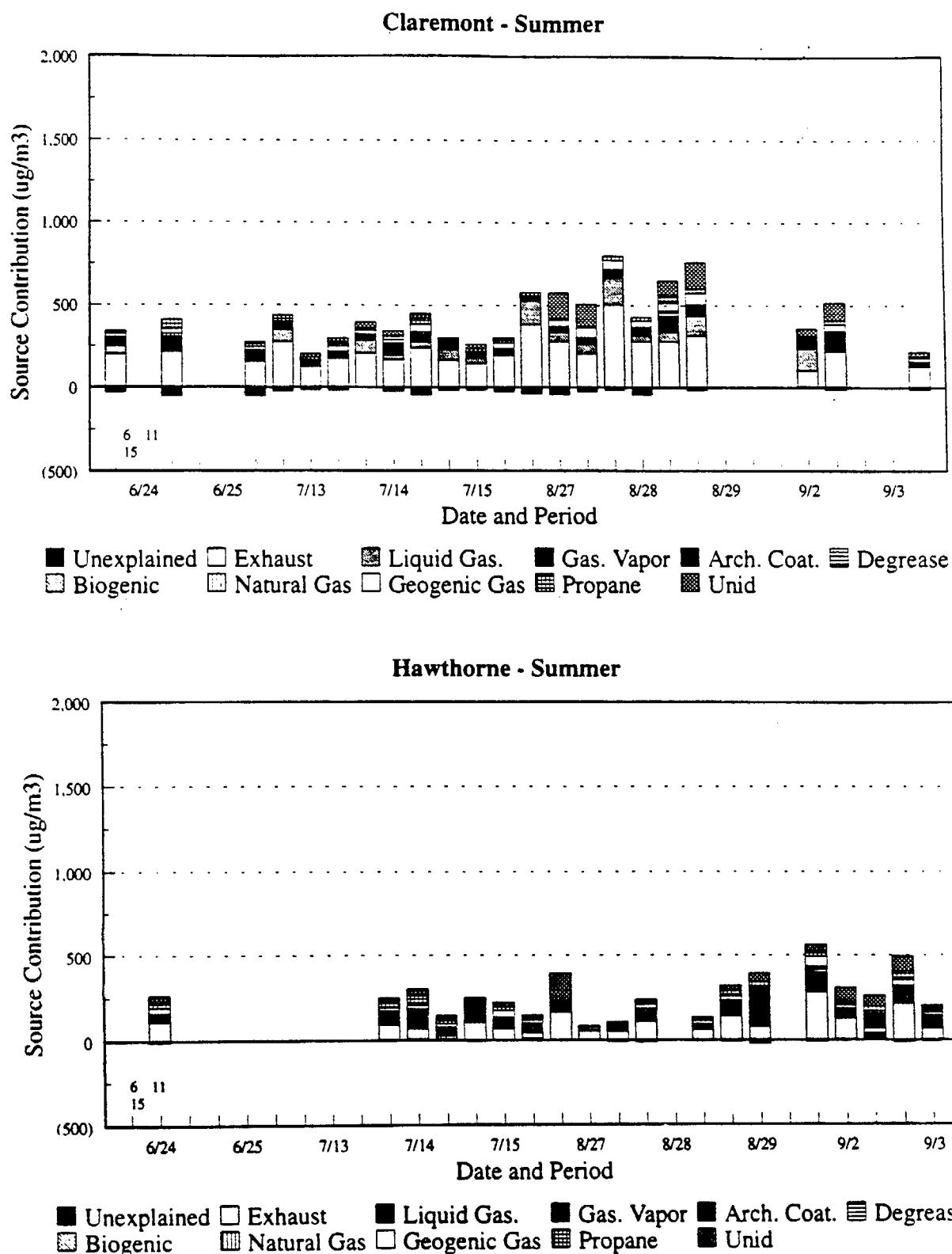


Figure 7-4c. NMHC Source Contribution Estimates at the Claremont and Hawthorne Sites During the Summer Campaign

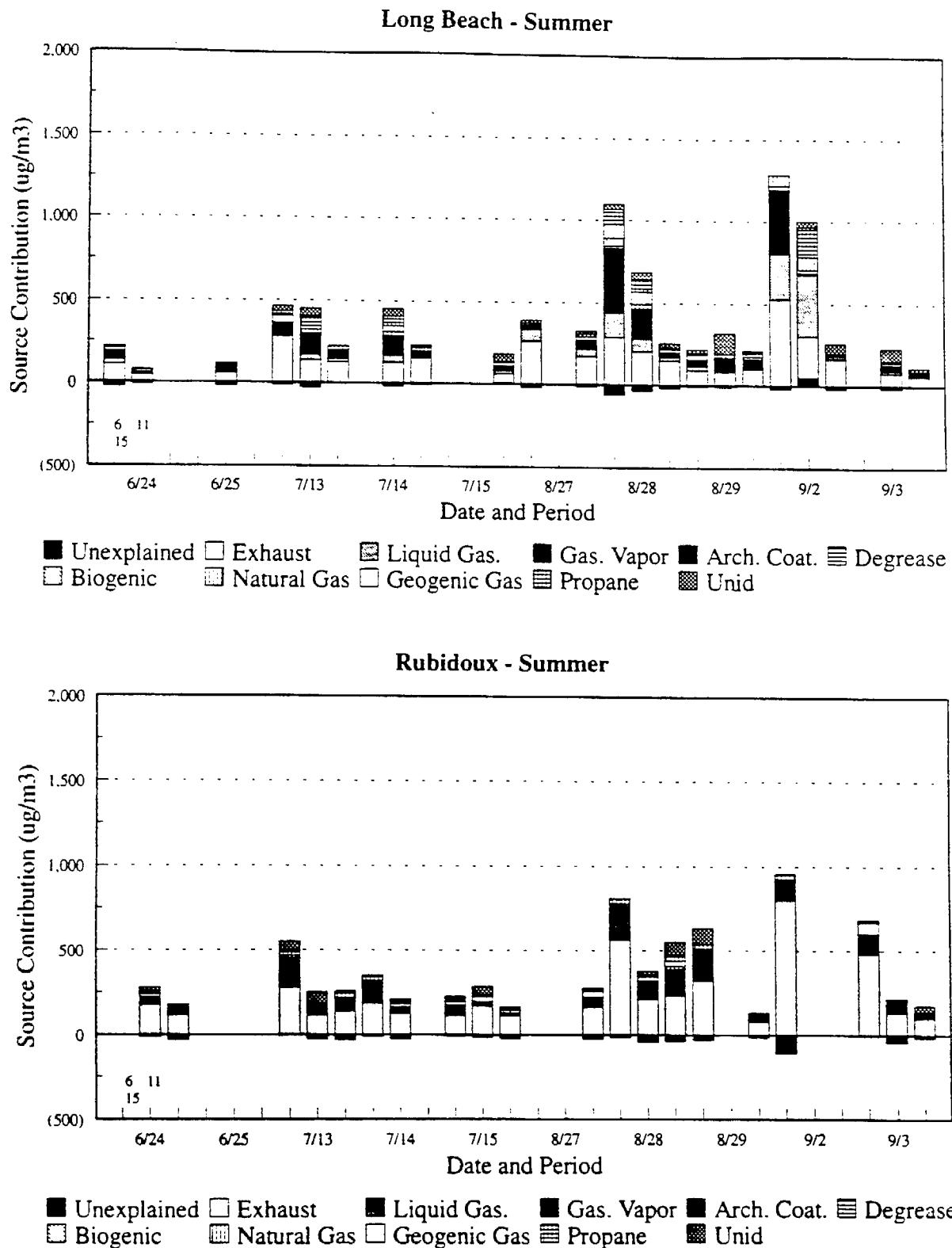


Figure 7-4d. NMHC Source Contribution Estimates at the Long Beach and Rubidoux Sites During the Summer Campaign

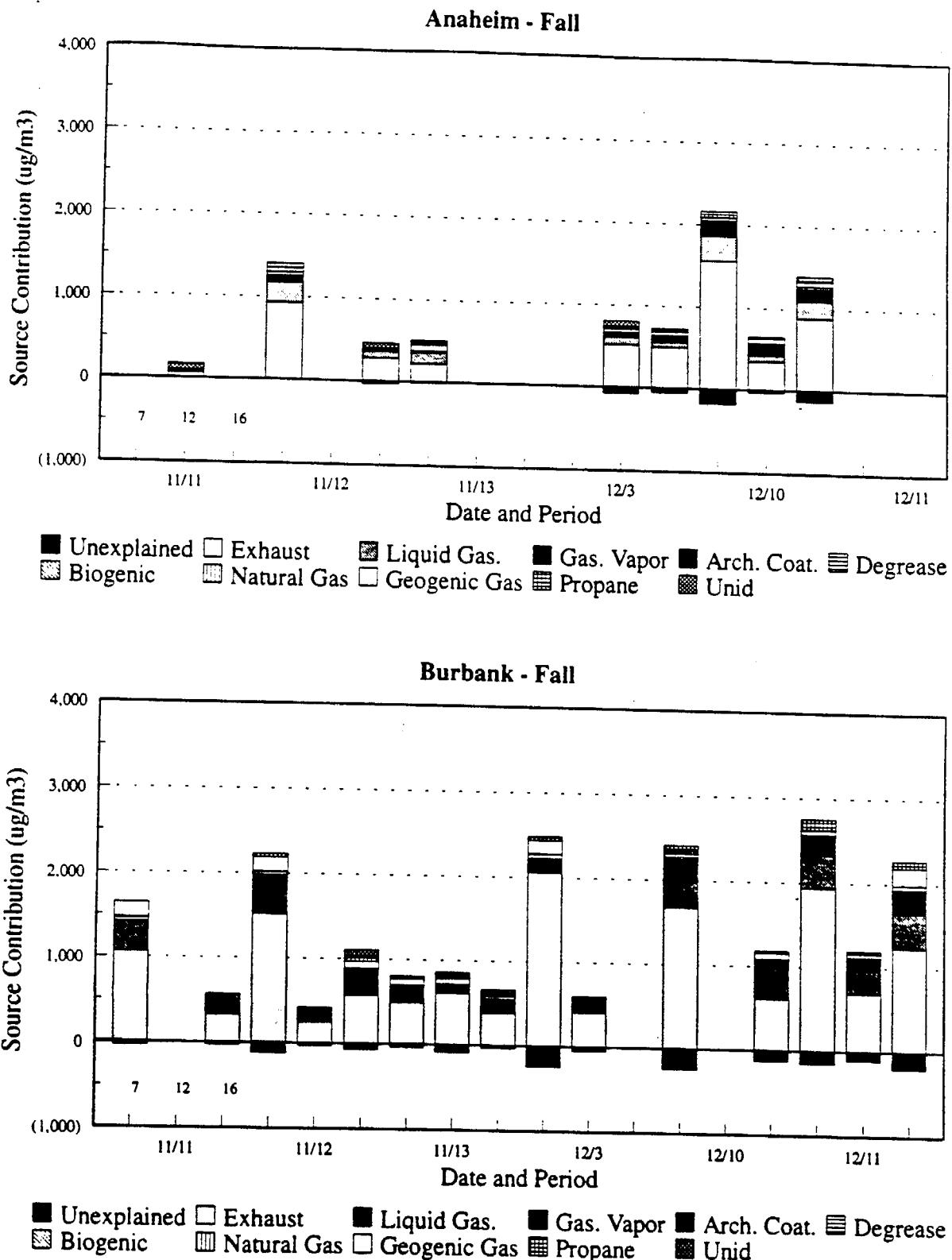


Figure 7-5a. NMHC Source Contribution Estimates at the Anaheim and Burbank Sites During the Fall Campaign

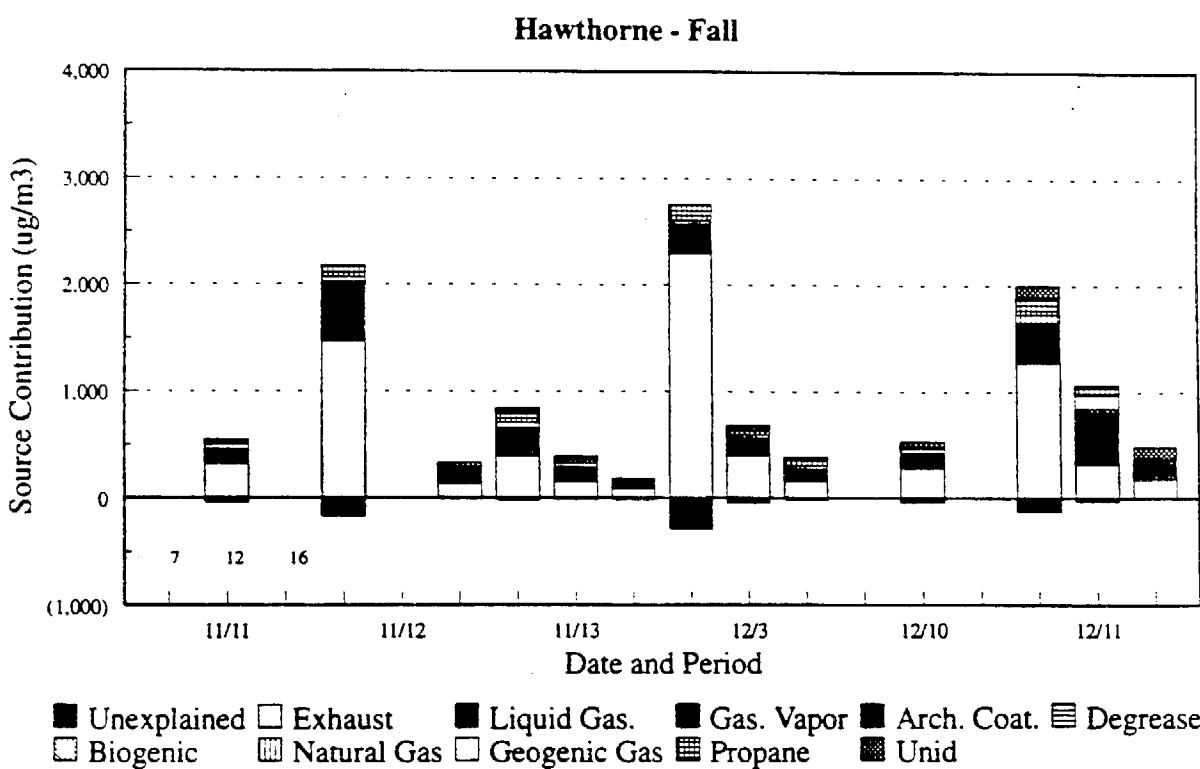
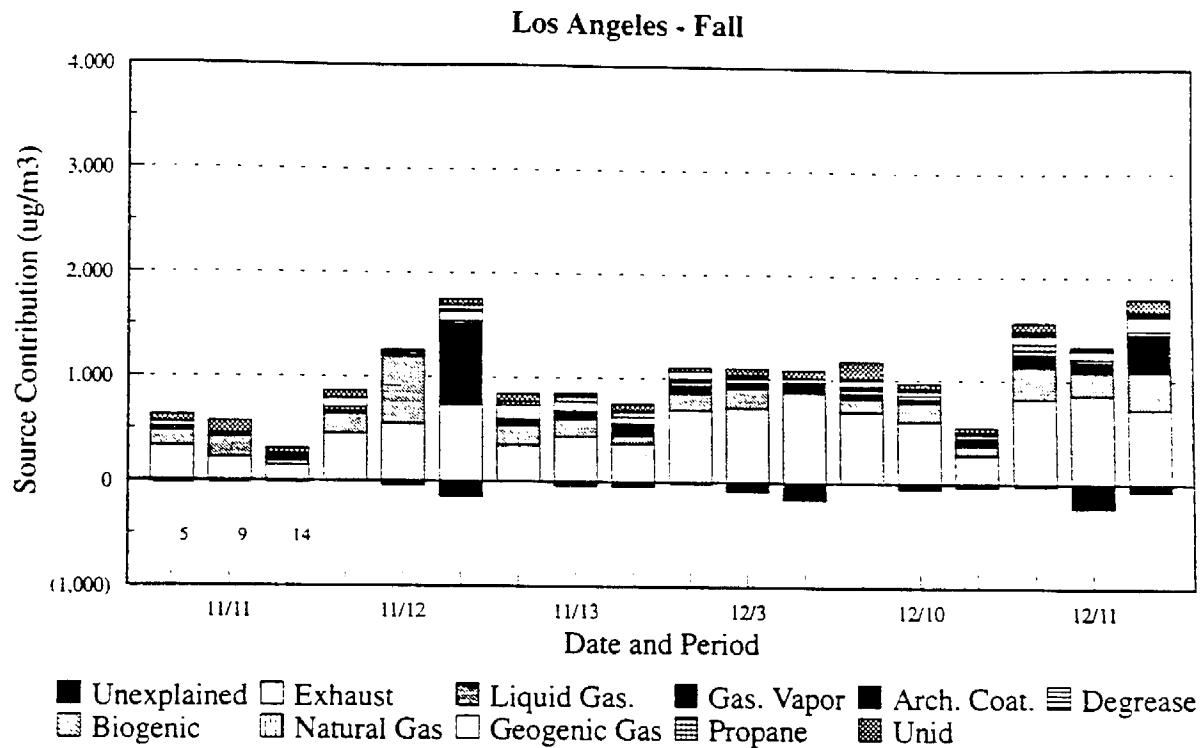


Figure 7-5b. NMHC Source Contribution Estimates at the Los Angeles and Hawthorne Sites During the Fall Campaign

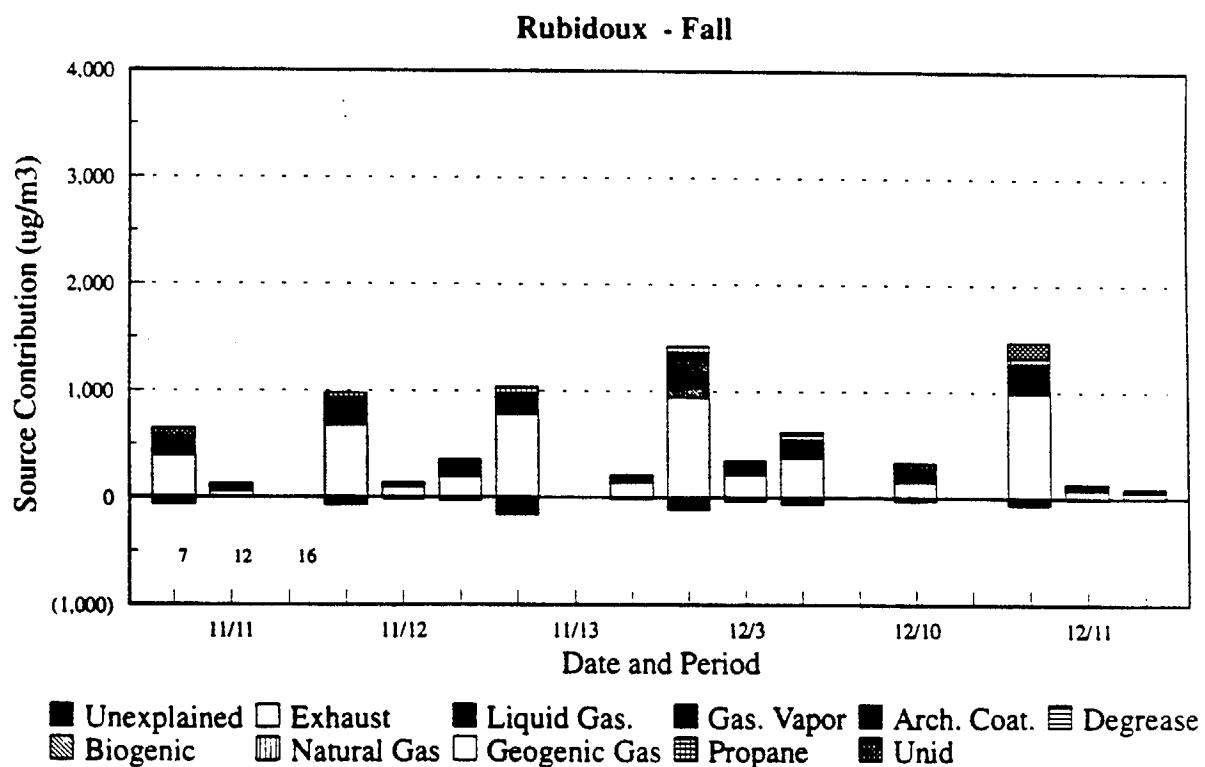
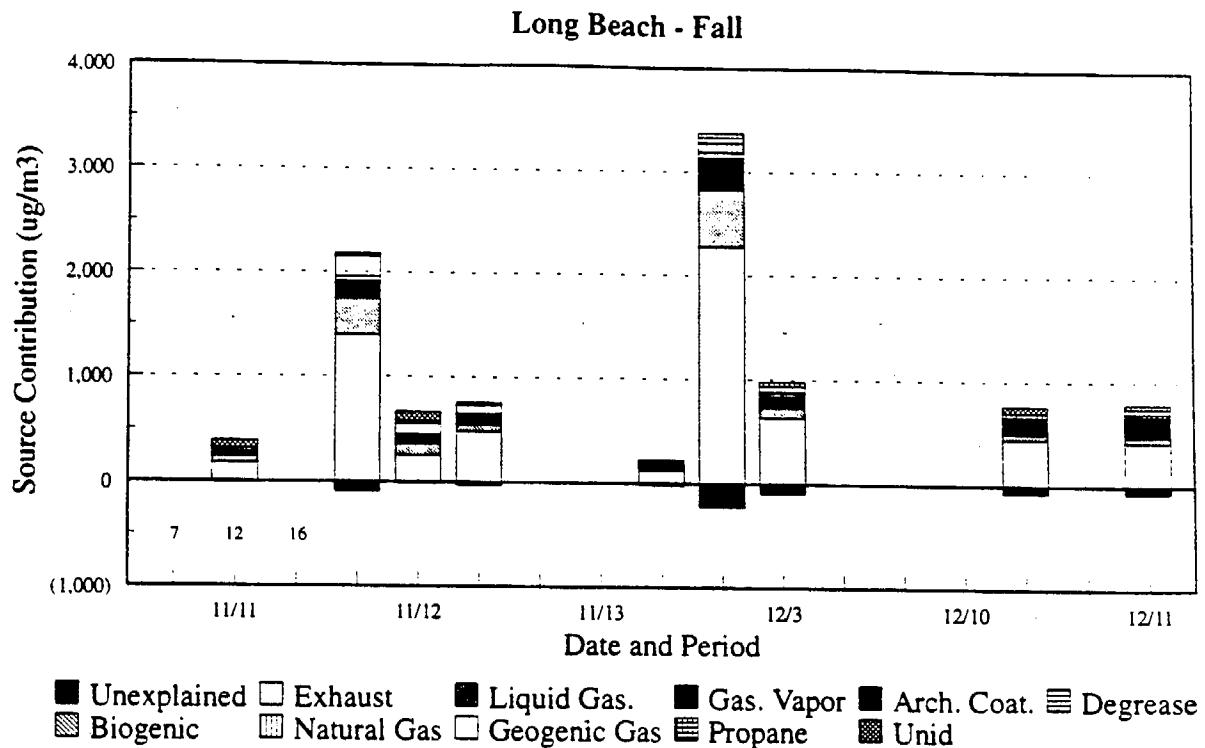


Figure 7-5c. NMHC Source Contribution Estimates at the Long Beach and Rubidoux Sites During the Fall Campaign

evaporative emissions from gasoline spillage, hot soaks, and resting loss (permeation, leaks, etc.). As seen from the sensitivity tests, the attribution of source contributions among these categories depends on the ratio of ethyne and light olefins to NMHC in the exhaust composition profile. Some of the "real-world" factors that affect this ratio include: 1) emissions due to non-catalyst vehicles versus catalyst-equipped vehicles; 2) contributions from high emitters; 3) contribution of different driving modes; and 4) vehicle speed and load. Source profile "Exh801a" appears to match best the actual vehicle exhaust composition among the alternative profiles that were tested.

The profile for gasoline headspace vapors reflects evaporative emission due to refueling, diurnal evaporation, and running loss. Commercial natural gas, geogenic natural gas, and liquefied propane gas have significant collinearity. These three categories are combined in Appendix C, and they represent some combination of gas leak emissions for different types of gas.

7.3 Period and Seasonal Averages

Summer and fall average source contributions to total NMHC by season and site are summarized in Table 7-6a to 7-6h. The uncertainties associated with these averages are the root-mean squared (RMS) errors of the source contribution estimates for individual samples rather than the standard error of the averages. These RMS uncertainties account for systematic as well as random biases in the individual source apportionments.

The spatial and temporal patterns in source contributions (expressed as average percentages of total NMHC) are plotted for the major emission source types in Figures 7-6a and 7-6b for the summer, and Figures 7-7a and 7-7b for the fall. The sampling sites are arranged from west to east. Motor vehicle exhaust is the major source of NMHC at all sites and time periods, ranging from 30% to 70% of total NMHC. The relative contributions from vehicle exhaust are larger during the fall period, particularly for the morning samples (66% to 71% in the fall versus 42% to 65% in the summer). This seasonal difference is consistent with the ROG emissions in Figure 2-2, which shows higher relative contributions from vehicle exhaust during the fall than during the summer.

In general, the contributions of vehicle exhaust are uniform throughout the basin with slightly higher contributions during the morning and afternoon commute periods. Source contributions at the Hawthorne site show a noticeable exception to this pattern. Exhaust contributions at the Hawthorne site are substantially lower during the mid-day and afternoon periods. As can be seen in Tables 7-1a and 7-1b, the average carbon monoxide concentration at the Hawthorne site is significantly lower during the mid-day and afternoon periods than in the morning or at any other sampling site. The sharp drop in carbon monoxide concentrations is likely caused by the close proximity of the sampling site to the coastline and the increasing strength of the sea breeze during the afternoon. Although the Hawthorne site is adjacent to the San Diego Freeway, the impact of the freeway is minimized by the sea breeze which transports

Table 7-6a
Average Source Contributions at the Anaheim Site

Source Category	Summer				Fall			
	600	1100	1500	700	1200	1600	1600	
SCE (ug/m ³)								
Unexplained	-17.0	72.9	-18.5	35.7	-18.6	35.7	-65.3	184.8
Exhaust	241.8	51.2	143.5	24.0	146.6	23.9	902.1	140.6
Liquid Gasoline	99.1	34.0	30.8	14.6	23.7	14.1	231.4	105.0
Gasoline Vapor	82.1	19.1	34.9	8.4	44.8	9.2	86.8	31.4
Arch. Coating	2.2	1.5	1.3	0.8	1.2	0.8	5.2	3.5
Degreasng	18.8	4.6	13.9	2.6	7.2	1.7	29.5	6.4
Biogenic	1.5	0.8	0.8	0.3	0.8	0.4	4.6	1.8
Natural Gas	14.0	7.2	3.7	3.1	4.6	3.0	0.0	0.0
Geogenic Gas	20.0	20.7	21.9	9.7	12.7	8.0	38.5	23.1
Petroleum Gas	28.2	9.6	21.3	5.9	22.0	6.1	44.3	12.2
Unidentified	26.5	15.0	26.0	12.7	31.1	13.9	16.1	12.7
Calculated Mass	534.3	70.4	297.9	34.2	294.7	34.1	1358.7	180.8
Measured Mass	517.3	18.6	279.4	10.0	276.1	10.6	1293.4	38.2
Number in Average	8	7	7	7	7	7	3	3
SCE (% of Calculated Mass)								
Unexplained	-3.2	13.6	-6.3	12.1	-4.8	13.6	-5.7	14.0
Exhaust	45.3	9.6	48.2	8.1	49.7	8.1	66.4	10.4
Liquid Gasoline	18.6	6.4	10.3	4.9	8.1	4.8	17.0	7.7
Gasoline Vapor	15.4	3.6	11.7	2.8	15.2	3.1	6.4	2.3
Arch. Coating	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.2
Degreasng	3.5	0.9	4.7	0.9	2.5	0.6	2.2	0.5
Biogenic	0.3	0.1	0.3	0.1	0.3	0.1	0.1	0.1
Natural Gas	2.6	1.4	1.2	1.0	1.6	1.0	0.0	0.0
Geogenic Gas	3.7	3.9	7.3	3.3	4.3	2.7	2.8	1.7
Petroleum Gas	5.3	1.8	7.1	2.0	7.4	2.1	3.3	0.9
Unidentified	5.0	2.8	8.7	4.3	10.5	4.7	1.2	0.9
Calculated Mass	100.0	13.2	100.0	11.5	100.0	11.6	100.0	13.3
Measured Mass	96.8	3.5	93.8	3.3	93.7	3.6	95.2	2.8

Table 7-6b
Average Source Contributions at the Azusa Site

Source Category	Summer					
	600	1100	1500	1500		
SCE (ug/m³)						
Unexplained	22.7	66.2	-28.0	45.8	-27.0	± 46.7
Exhaust	255.8	42.5	208.4	31.6	215.4	± 32.3
Liquid Gasoline	133.8	27.8	42.1	18.2	36.9	± 18.3
Gasoline Vapor	14.0	8.3	30.7	9.2	41.6	± 11.0
Arch. Coating	2.8	1.3	2.1	1.0	2.3	± 1.0
Degreasing	16.8	3.4	10.6	2.3	10.5	± 2.2
Biogenic	0.6	0.4	0.2	0.3	0.4	± 0.3
Natural Gas	0.0	0.0	4.7	3.1	7.6	± 4.2
Geogenic Gas	72.7	14.7	33.8	11.9	27.7	± 12.6
Petroleum Gas	22.7	8.1	26.1	6.8	25.3	± 6.9
Unidentified	72.0	30.9	42.1	17.6	35.0	± 17.0
Calculated Mass	591.2	62.4	401.0	44.0	402.7	± 44.9
Measured Mass	613.9	22.1	373.0	12.9	375.7	± 13.0
Number in Average	6	6	5	8		
SCE (% of Calculated Mass)						
Unexplained	3.8	11.2	-7.0	11.4	-6.7	± 11.6
Exhaust	43.3	7.2	52.0	7.9	53.5	± 8.0
Liquid Gasoline	22.6	4.7	10.5	4.5	9.2	± 4.5
Gasoline Vapor	2.4	1.4	7.7	2.3	10.3	± 2.7
Arch. Coating	0.5	0.2	0.5	0.2	0.6	± 0.3
Degreasing	2.8	0.6	2.7	0.6	2.6	± 0.5
Biogenic	0.1	0.1	0.1	0.1	0.1	± 0.1
Natural Gas	0.0	0.0	1.2	0.8	1.9	± 1.0
Geogenic Gas	12.3	2.5	8.4	3.0	6.9	± 3.1
Petroleum Gas	3.8	1.4	6.5	1.7	6.3	± 1.7
Unidentified	12.2	5.2	10.5	4.4	8.7	± 4.2
Calculated Mass	100.0	10.6	100.0	11.0	100.0	± 11.2
Measured Mass	103.8	3.7	93.0	3.2	93.3	± 3.2

Table 7-6c
Average Source Contributions at the Burbank Site

Source Category	Summer				Fall				1600			
	600	1100	1500	700	1200	1600	1200	1600	93.0	93.0	83.8	150.7
SCE (ug/m3)												
Unexplained	-16.3	+108.0	-48.4	+75.2	-11.5	+51.8	-131.7	+260.0	-59.4	+93.0	-83.8	+150.7
Exhaust	469.2	+78.8	343.6	+51.8	222.5	+33.7	1459.8	+201.8	492.7	+68.8	627.9	+109.4
Liquid Gasoline	153.7	+49.0	77.2	+29.6	84.7	+20.2	258.2	+138.4	113.2	+45.8	252.4	+81.1
Gasoline Vapor	93.2	+26.2	60.9	+15.3	26.8	+8.9	131.5	+44.8	69.3	+20.2	93.9	+32.2
Arch. Coating	3.9	+2.1	2.7	+1.4	2.0	+1.1	5.8	+4.8	2.3	+1.8	4.3	+2.8
Degreasng	17.3	+3.9	14.6	+3.0	11.0	+2.2	47.6	+10.1	18.1	+4.0	24.3	+5.9
Biogenic	0.9	+0.7	0.5	+0.5	0.6	+0.4	2.3	+1.7	0.6	+0.6	1.0	+0.8
Natural Gas	24.6	+11.0	4.8	+4.4	2.4	+1.7	11.7	+13.2	0.0	+0.0	0.0	+0.0
Geogenic Gas	43.5	+25.2	50.2	+17.5	30.9	+10.7	97.2	+44.9	41.0	+22.3	78.5	+33.1
Petroleum Gas	48.1	+13.9	39.5	+10.2	31.8	+8.0	43.2	+17.3	22.0	+8.5	40.8	+15.1
Unidentified	51.9	+25.4	70.0	+30.7	61.6	+24.1	0.0	+0.0	10.1	+17.7	37.3	+26.1
Calculated Mass	906.3	+104.5	664.0	+71.9	474.3	+48.9	2057.4	+253.9	769.3	+90.2	1160.4	+147.0
Measured Mass	889.9	+27.4	615.6	+22.1	462.8	+16.9	1925.7	+55.9	709.9	+22.3	1076.6	+33.2
Number in Average	7		10		8		6		4		5	
SCE (% of Calculated Mass)												
Unexplained	-1.8	+11.9	-7.3	+11.3	-2.4	+10.9	-6.4	+12.6	-7.7	+12.1	-7.2	+13.0
Exhaust	51.8	+8.7	51.8	+7.8	46.9	+7.1	71.0	+9.8	64.0	+8.9	54.1	+9.4
Liquid Gasoline	17.0	+5.4	11.6	+4.5	17.9	+4.3	12.5	+6.7	14.7	+6.0	21.8	+7.0
Gasoline Vapor	10.3	+2.9	9.2	+2.3	5.6	+1.9	6.4	+2.2	9.0	+2.6	8.1	+2.8
Arch. Coating	0.4	+0.2	0.4	+0.2	0.4	+0.2	0.3	+0.2	0.3	+0.2	0.4	+0.2
Degreasng	1.9	+0.4	2.2	+0.4	2.3	+0.5	2.3	+0.5	2.4	+0.5	2.1	+0.5
Biogenic	0.1	+0.1	0.1	+0.1	0.1	+0.1	0.1	+0.1	0.1	+0.1	0.1	+0.1
Natural Gas	2.7	+1.2	0.7	+0.7	0.5	+0.4	0.6	+0.6	0.0	+0.0	0.0	+0.0
Geogenic Gas	4.8	+2.8	7.6	+2.6	6.5	+2.3	4.7	+2.2	5.3	+2.9	6.8	+2.8
Petroleum Gas	5.3	+1.5	6.0	+1.5	6.7	+1.7	2.1	+0.8	2.9	+1.1	3.5	+1.3
Unidentified	5.7	+2.8	10.5	+4.6	13.0	+5.1	0.0	+0.0	1.3	+2.3	3.2	+2.3
Calculated Mass	100.0	+11.5	100.0	+10.8	100.0	+10.3	100.0	+12.3	100.0	+11.7	100.0	+12.7
Measured Mass	98.2	+3.0	92.7	+3.3	97.6	+3.6	93.6	+2.7	92.3	+2.9	92.8	+2.9

Table 7-6d
Average Source Contributions at the Los Angeles Site

Source Category	Summer			
	600	1100	1500	
SCE (ug/m³)				
Unexplained	-2.5	± 82.8	-43.7	± 88.8
Exhaust	388.0	± 61.1	412.1	± 65.9
Liquid Gasoline	156.9	± 38.0	121.0	± 39.0
Gasoline Vapor	36.6	± 14.0	94.1	± 20.4
Arch. Coating	4.4	± 1.9	5.1	± 2.0
Degreasing	13.4	± 3.3	15.0	± 3.3
Biogenic	0.8	± 0.5	0.6	± 0.6
Natural Gas	3.6	± 3.5	2.1	± 3.1
Geogenic Gas	41.6	± 17.5	53.1	± 18.9
Petroleum Gas	21.0	± 7.5	33.2	± 9.9
Unidentified	37.1	± 24.8	39.7	± 23.9
Calculated Mass	703.4	± 79.9	776.0	± 85.6
Measured Mass	701.0	± 21.7	732.3	± 23.4
Number in Average	6		6	
SCE (% of Calculated Mass)				
Unexplained	-0.3	± 11.8	-5.6	± 11.4
Exhaust	55.2	± 8.7	53.1	± 8.5
Liquid Gasoline	22.3	± 5.4	15.6	± 5.0
Gasoline Vapor	5.2	± 2.0	12.1	± 2.6
Arch. Coating	0.6	± 0.3	0.7	± 0.3
Degreasing	1.9	± 0.5	1.9	± 0.4
Biogenic	0.1	± 0.1	0.1	± 0.1
Natural Gas	0.5	± 0.5	0.3	± 0.4
Geogenic Gas	5.9	± 2.5	6.8	± 2.4
Petroleum Gas	3.0	± 1.1	4.3	± 1.3
Unidentified	5.3	± 3.5	5.1	± 3.1
Calculated Mass	100.0	± 11.4	100.0	± 11.0
Measured Mass	99.7	± 3.1	94.4	± 3.0

Table 7-6d (Continued)
Average Source Contributions at the Los Angeles Site

Source Category	500	700	900	Fall	1200	1400
SCE (ug/m3)						
Unexplained	-6.4	± 134.8	-103.9	± 307.0	-78.0	± 123.9
Exhaust	551.2	± 91.3	1479.5	± 224.6	562.2	± 89.6
Liquid Gasoline	190.1	± 70.7	406.2	± 172.0	269.2	± 66.6
Gasoline Vapor	46.9	± 20.7	98.7	± 44.5	35.1	± 17.3
Arch. Coating	3.8	± 2.2	7.0	± 5.0	4.0	± 2.4
Degreasing	28.7	± 5.5	50.9	± 9.9	23.5	± 5.0
Biogenic	2.0	± 1.0	3.1	± 1.7	1.1	± 0.8
Natural Gas	24.8	± 12.9	36.7	± 27.5	1.3	± 1.4
Geogenic Gas	82.1	± 35.7	95.6	± 85.9	44.1	± 23.9
Petroleum Gas	22.7	± 11.7	60.1	± 24.6	27.2	± 9.6
Unidentified	75.8	± 41.4	0.0	± 0.0	45.6	± 31.8
Calculated Mass	1028.1	± 130.7	2237.8	± 301.4	1013.3	± 120.3
Measured Mass	1021.7	± 32.8	2133.9	± 58.3	935.3	± 29.4
Number in Average	6		1	6	1	6
SCE (% of Calculated Mass)						
Unexplained	-0.6	± 13.1	-4.6	± 13.7	-7.7	± 12.2
Exhaust	53.6	± 8.9	66.1	± 10.0	55.5	± 8.8
Liquid Gasoline	18.5	± 6.9	18.2	± 7.7	26.6	± 6.6
Gasoline Vapor	4.6	± 2.0	4.4	± 2.0	3.5	± 1.7
Arch. Coating	0.4	± 0.2	0.3	± 0.2	0.4	± 0.2
Degreasing	2.8	± 0.5	2.3	± 0.4	2.3	± 0.5
Biogenic	0.2	± 0.1	0.1	± 0.1	0.0	± 0.1
Natural Gas	2.4	± 1.3	1.6	± 1.2	0.1	± 0.1
Geogenic Gas	8.0	± 3.5	4.3	± 3.8	4.4	± 2.4
Petroleum Gas	2.2	± 1.1	2.7	± 1.1	2.7	± 0.9
Unidentified	7.4	± 4.0	0.0	± 0.0	4.5	± 3.1
Calculated Mass	100.0	± 12.7	100.0	± 13.5	100.0	± 11.9
Measured Mass	99.4	± 3.2	95.4	± 2.6	92.3	± 2.9

Table 7-6e
Average Source Contributions at the Claremont Site

Source Category	SCE (ug/m3)	Summer				1300				1500			
		400	600	800	1100	1300	1400	1500	1600	1700	1800	1900	2000
Unexplained	-17.7 ± 65.1	-21.2 ± 64.5	-33.0 ± 68.4	-23.2 ± 43.5	-35.6 ± 48.4	-27.9 ± 43.2	-207.5 ± 28.3	-199.3 ± 26.7	-199.3 ± 26.7	-18.1 ± 13.3	-18.1 ± 13.3	-53.6 ± 11.5	-53.6 ± 11.5
Exhaust	248.9 ± 39.7	290.4 ± 47.1	291.2 ± 44.3	180.9 ± 28.8	180.9 ± 28.8	17.2 ± 14.7	32.1 ± 14.7	18.1 ± 13.3	18.1 ± 13.3	1.0 ± 2.6	1.0 ± 2.6	2.6 ± 1.0	2.6 ± 1.0
Liquid Gasoline	68.6 ± 24.1	102.2 ± 29.2	97.7 ± 27.0	49.0 ± 17.2	49.0 ± 17.2	1.3 ± 1.1	1.1 ± 1.1	1.1 ± 1.1	1.1 ± 1.1	0.6 ± 0.5	0.6 ± 0.5	0.6 ± 0.6	0.6 ± 0.6
Gasoline Vapor	38.2 ± 10.9	29.8 ± 11.5	26.3 ± 9.9	34.8 ± 8.6	34.8 ± 8.6	1.4 ± 1.2	1.0 ± 1.0	1.0 ± 1.0	1.0 ± 1.0	2.2 ± 2.2	2.2 ± 2.2	2.2 ± 2.2	2.2 ± 2.2
Arch. Coating	2.9 ± 1.2	2.9 ± 1.3	2.6 ± 1.4	1.7 ± 0.8	1.7 ± 0.8	1.3 ± 1.2	1.2 ± 1.2	1.2 ± 1.2	1.2 ± 1.2	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5
Degreasing	8.4 ± 2.0	8.7 ± 2.1	9.2 ± 2.1	8.2 ± 1.8	8.2 ± 1.8	1.3 ± 1.3	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	2.3 ± 2.3	2.3 ± 2.3	2.3 ± 2.3	2.3 ± 2.3
Biogenic	0.2 ± 0.3	0.7 ± 0.4	1.3 ± 0.5	3.4 ± 3.4	3.4 ± 3.4	4.1 ± 2.6	2.6 ± 2.3	2.3 ± 2.3	2.3 ± 2.3	4.8 ± 4.8	4.8 ± 4.8	4.8 ± 4.8	4.8 ± 4.8
Natural Gas	10.8 ± 4.7	7.9 ± 4.5	4.1 ± 4.5	3.8 ± 3.8	3.8 ± 3.8	14.6 ± 14.8	18.3 ± 9.6	18.3 ± 9.6	18.3 ± 9.6	36.4 ± 36.4	36.4 ± 36.4	37.9 ± 37.9	37.9 ± 37.9
Geogenic Gas	23.7 ± 13.6	24.9 ± 14.6	46.0 ± 46.0	15.7 ± 15.7	15.7 ± 15.7	5.9 ± 6.7	6.7 ± 4.7	6.7 ± 4.7	6.7 ± 4.7	38.6 ± 38.6	38.6 ± 38.6	10.5 ± 10.5	10.5 ± 10.5
Petroleum Gas	21.8 ± 6.2	19.5 ± 5.9	18.1 ± 6.7	19.7 ± 19.7	19.7 ± 19.7	20.1 ± 19.7	33.4 ± 33.4	46.0 ± 46.0	46.0 ± 46.0	25.6 ± 25.6	25.6 ± 25.6	46.6 ± 46.6	46.6 ± 46.6
Unidentified	85.6 ± 35.0	29.8 ± 20.1	75.3 ± 75.3	41.3 ± 41.3	41.3 ± 41.3	62.3 ± 62.3	572.0 ± 572.0	361.7 ± 361.7	361.7 ± 361.7	45.4 ± 45.4	45.4 ± 45.4	402.4 ± 402.4	402.4 ± 402.4
Calculated Mass	509.2 ± 61.3	516.7 ± 516.7	539.0 ± 539.0	22.3 ± 22.3	22.3 ± 22.3	16.7 ± 16.7	13.6 ± 13.6	13.6 ± 13.6	13.6 ± 13.6	16.9 ± 16.9	16.9 ± 16.9	374.5 ± 374.5	374.5 ± 374.5
Measured Mass	491.5 ± 21.8	495.6 ± 495.6	7 ± 7	7 ± 7	7 ± 7	7 ± 7	6 ± 6	6 ± 6	6 ± 6	9 ± 9	9 ± 9	93.1 ± 93.1	93.1 ± 93.1
Number in Average													
SCE (% of Calculated Mass)		Summer				1300				1500			
Unexplained	-3.5 ± 12.8	-4.1 ± 12.5	-5.8 ± 12.0	-6.4 ± 12.0	-8.1 ± 12.0	-12.0 ± 10.9	-46.9 ± 6.4	-46.9 ± 6.4	-46.9 ± 6.4	-6.9 ± 10.7	-6.9 ± 10.7	-6.9 ± 10.7	-6.9 ± 10.7
Exhaust	48.9 ± 7.8	56.2 ± 9.1	50.9 ± 7.7	50.0 ± 7.9	50.0 ± 7.9	7.7 ± 7.3	7.3 ± 7.3	7.3 ± 7.3	7.3 ± 7.3	4.5 ± 4.5	4.5 ± 4.5	4.5 ± 4.5	4.5 ± 4.5
Liquid Gasoline	13.5 ± 4.7	19.8 ± 5.7	17.1 ± 4.7	13.5 ± 4.8	13.5 ± 4.8	2.2 ± 2.4	10.8 ± 10.8	10.8 ± 10.8	10.8 ± 10.8	2.5 ± 3.3	2.5 ± 3.3	2.5 ± 3.3	2.5 ± 3.3
Gasoline Vapor	7.5 ± 2.2	5.8 ± 2.2	4.6 ± 1.7	0.5 ± 0.5	0.5 ± 0.5	0.2 ± 0.2	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.2 ± 0.6	0.2 ± 0.6	0.2 ± 0.6	0.2 ± 0.6
Arch. Coating	0.6 ± 0.2	0.6 ± 0.3	0.6 ± 0.2	0.4 ± 0.2	0.4 ± 0.2	0.4 ± 0.2	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5
Degreasing	1.6 ± 0.4	1.7 ± 0.4	1.6 ± 0.4	1.6 ± 0.4	1.6 ± 0.4	0.1 ± 0.1	0.9 ± 0.9	0.9 ± 0.9	0.9 ± 0.9	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1
Biogenic	0.0 ± 0.1	0.1 ± 0.1	0.1 ± 0.1	0.2 ± 0.2	0.2 ± 0.2	0.1 ± 0.1	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5	0.5 ± 0.5
Natural Gas	2.1 ± 0.9	1.5 ± 0.9	0.9 ± 0.7	1.0 ± 1.0	1.0 ± 1.0	2.8 ± 2.6	5.1 ± 5.1	2.6 ± 2.6	2.6 ± 2.6	2.7 ± 2.7	2.7 ± 2.7	9.4 ± 9.4	9.4 ± 9.4
Geogenic Gas	4.7 ± 2.7	4.8 ± 2.8	8.0 ± 8.0	4.3 ± 4.3	4.3 ± 4.3	1.1 ± 1.2	1.2 ± 1.3	1.2 ± 1.3	1.2 ± 1.3	2.4 ± 2.4	2.4 ± 2.4	6.9 ± 6.9	6.9 ± 6.9
Petroleum Gas	4.3 ± 1.2	3.8 ± 1.1	3.2 ± 3.2	5.4 ± 5.4	5.4 ± 5.4	13.2 ± 12.7	100.0 ± 100.0	11.3 ± 11.3	11.3 ± 11.3	14.3 ± 14.3	14.3 ± 14.3	5.8 ± 5.8	5.8 ± 5.8
Unidentified	16.8 ± 6.9	5.8 ± 3.9	12.1 ± 100.0	100.0 ± 100.0	100.0 ± 100.0	3.2 ± 94.2	3.9 ± 93.6	3.9 ± 93.6	3.9 ± 93.6	10.3 ± 10.3	10.3 ± 10.3	10.1 ± 10.1	10.1 ± 10.1
Calculated Mass	100.0 ± 12.0	95.9 ± 4.3	7 ± 7	7 ± 7	7 ± 7	7 ± 7	6 ± 6	6 ± 6	6 ± 6	9 ± 9	9 ± 9	93.1 ± 93.1	93.1 ± 93.1
Measured Mass													

Table 7-6f
Average Source Contributions at the Hawthorne Site

Source Category	SCE (ug/m ³)	Summer			Fall		
		600	1100	1500	700	1200	1600
Unexplained	-6.8 ± 40.9	3.3 ± 25.3	8.5 ± 17.9	-148.3 ± 194.2	-30.6 ± 80.5	-6.3 ± 44.0	
Exhaust	158.9 ± 24.1	81.1 ± 12.1	40.7 ± 9.5	1363.4 ± 148.7	302.2 ± 50.9	144.2 ± 25.9	
Liquid Gasoline	21.0 ± 13.0	14.7 ± 7.1	36.8 ± 7.7	150.6 ± 87.7	67.1 ± 40.7	42.2 ± 20.9	
Gasoline Vapor	51.9 ± 10.4	58.7 ± 9.6	10.8 ± 3.1	188.6 ± 47.7	119.2 ± 26.0	41.0 ± 9.7	
Arch. Coating	2.1 ± 0.9	1.6 ± 0.7	1.2 ± 0.6	9.4 ± 4.9	3.3 ± 1.5	1.6 ± 0.8	
Degreasing	10.7 ± 2.3	5.7 ± 1.4	4.1 ± 1.1	35.0 ± 8.3	15.2 ± 3.2	5.8 ± 1.5	
Biogenic	0.1 ± 0.2	0.1 ± 0.2	0.1 ± 0.2	2.3 ± 1.7	0.2 ± 0.4	0.2 ± 0.3	
Natural Gas	8.0 ± 4.1	5.8 ± 2.6	2.9 ± 1.5	44.8 ± 20.2	15.8 ± 7.9	12.0 ± 4.5	
Geogenic Gas	25.0 ± 11.1	21.2 ± 6.7	13.8 ± 4.1	12.5 ± 13.1	55.7 ± 21.3	22.8 ± 11.0	
Petroleum Gas	28.8 ± 7.1	26.7 ± 6.6	13.8 ± 3.6	106.8 ± 22.9	33.7 ± 10.6	23.1 ± 6.4	
Unidentified	53.6 ± 20.8	38.1 ± 12.7	26.3 ± 9.2	39.6 ± 41.4	38.3 ± 23.0	57.8 ± 19.2	
Calculated Mass	360.2 ± 38.5	253.6 ± 23.4	150.5 ± 16.6	1952.8 ± 187.0	650.8 ± 78.1	350.5 ± 41.9	
Measured Mass	353.4 ± 13.6	250.3 ± 9.5	159.0 ± 6.5	1804.5 ± 52.3	620.2 ± 19.6	344.2 ± 13.2	
Number in Average	7	5	5	4	5	4	
SCE (% of Calculated Mass)							
Unexplained	-1.9 ± 11.3	-1.3 ± 10.0	5.6 ± 11.9	-7.6 ± 9.9	-4.7 ± 12.4	-1.8 ± 12.5	
Exhaust	44.1 ± 6.7	32.0 ± 4.8	27.0 ± 6.3	69.8 ± 7.6	46.4 ± 7.8	41.1 ± 7.4	
Liquid Gasoline	5.8 ± 3.6	5.8 ± 2.8	24.5 ± 5.1	7.7 ± 4.5	10.3 ± 6.2	12.0 ± 6.0	
Gasoline Vapor	14.4 ± 2.9	23.1 ± 3.8	7.2 ± 2.0	9.7 ± 2.4	18.3 ± 4.0	11.7 ± 2.8	
Arch. Coating	0.6 ± 0.2	0.6 ± 0.3	0.8 ± 0.4	0.5 ± 0.3	0.5 ± 0.2	0.5 ± 0.2	
Degreasing	3.0 ± 0.6	2.3 ± 0.6	2.7 ± 0.8	1.8 ± 0.4	2.3 ± 0.5	1.6 ± 0.4	
Biogenic	0.0 ± 0.1	0.0 ± 0.1	0.1 ± 0.1	0.1 ± 0.1	0.0 ± 0.1	0.1 ± 0.1	
Natural Gas	2.2 ± 1.1	2.3 ± 1.0	1.9 ± 1.0	2.3 ± 1.0	2.4 ± 1.2	3.4 ± 1.3	
Geogenic Gas	6.9 ± 3.1	8.4 ± 2.6	9.2 ± 2.7	0.6 ± 0.7	8.6 ± 3.3	6.5 ± 3.1	
Petroleum Gas	8.0 ± 2.0	10.5 ± 2.6	9.2 ± 2.4	5.5 ± 1.2	5.2 ± 1.6	6.6 ± 1.8	
Unidentified	14.9 ± 5.8	15.0 ± 5.0	17.5 ± 6.1	2.0 ± 2.1	5.9 ± 3.5	16.5 ± 5.5	
Calculated Mass	100.0 ± 10.7	100.0 ± 9.2	100.0 ± 11.1	100.0 ± 9.6	100.0 ± 12.0	100.0 ± 12.0	
Measured Mass	98.1 ± 3.8	98.7 ± 3.8	105.6 ± 4.3	92.4 ± 2.7	95.3 ± 3.0	98.2 ± 3.8	

Table 7-6g
Average Source Contributions at the Long Beach Site

Source Category	Summer						Winter					
	400	600	800	1000	1100	1200	1300	1400	1500	1600	1700	1800
SCE (ug/m³)												
Unexplained	-0.0	± 41.6	-23.5	± 71.2	-9.7	± 68.0	-9.9	± 47.6	-0.2	± 35.7	-6.1	± 26.5
Exhaust	138.7	± 26.9	259.9	± 48.3	195.3	± 45.1	121.9	± 26.3	112.5	± 15.9	122.5	± 18.1
Liquid Gasoline	26.5	± 16.7	94.0	± 32.2	55.7	± 28.4	73.1	± 20.3	16.6	± 8.3	17.5	± 10.3
Gasoline Vapor	47.6	± 11.3	146.8	± 27.4	40.7	± 14.4	60.3	± 11.3	37.4	± 8.0	24.2	± 5.9
Arch. Coating	2.7	± 1.0	4.9	± 1.9	2.7	± 1.4	3.9	± 1.4	2.1	± 0.9	0.9	± 0.7
Degreasing	7.7	± 2.0	12.7	± 3.0	12.3	± 3.5	9.3	± 2.3	10.0	± 2.3	6.7	± 1.5
Biogenic	0.2	± 0.3	0.5	± 0.5	0.4	± 0.4	0.2	± 0.3	1.4	± 0.7	0.3	± 0.3
Natural Gas	17.1	± 6.3	25.3	± 8.2	8.6	± 7.0	21.3	± 7.4	4.7	± 3.0	3.8	± 1.9
Geogenic Gas	29.7	± 12.2	29.0	± 14.6	38.5	± 19.6	22.0	± 9.9	23.5	± 8.9	10.4	± 5.9
Petroleum Gas	23.8	± 7.6	27.9	± 9.9	28.7	± 10.5	53.6	± 15.0	20.0	± 5.3	14.7	± 3.8
Unidentified	34.8	± 14.3	13.2	± 13.0	45.0	± 25.3	46.0	± 19.4	66.3	± 24.0	25.4	± 10.9
Calculated Mass	328.8	± 39.8	614.2	± 68.4	427.9	± 65.2	411.5	± 44.7	294.6	± 32.9	226.7	± 25.3
Measured Mass	328.7	± 11.9	590.7	± 19.7	418.2	± 19.4	401.7	± 16.2	294.4	± 13.7	220.5	± 7.9
Number in Average	9		6		8		8		6		8	
SCE (% of Calculated Mass)												
Unexplained	-0.0	± 12.6	-3.8	± 11.6	-2.3	± 15.9	-2.4	± 11.6	-0.1	± 12.1	-2.7	± 11.7
Exhaust	42.2	± 8.2	42.3	± 7.9	45.6	± 10.5	29.6	± 6.4	38.2	± 5.4	54.1	± 8.0
Liquid Gasoline	8.1	± 5.1	15.3	± 5.2	13.0	± 6.6	17.8	± 4.9	5.6	± 2.8	7.7	± 4.5
Gasoline Vapor	14.5	± 3.4	23.9	± 4.5	9.5	± 3.4	14.6	± 2.7	12.7	± 2.7	10.7	± 2.6
Arch. Coating	0.8	± 0.3	0.8	± 0.3	0.6	± 0.3	0.9	± 0.3	0.7	± 0.3	0.4	± 0.3
Degreasing	2.3	± 0.6	2.1	± 0.5	2.9	± 0.8	2.3	± 0.6	3.4	± 0.8	3.0	± 0.7
Biogenic	0.1	± 0.1	0.1	± 0.1	0.1	± 0.1	0.1	± 0.1	0.5	± 0.2	0.2	± 0.1
Natural Gas	5.2	± 1.9	4.1	± 1.3	2.0	± 1.6	5.2	± 1.8	1.6	± 1.0	1.7	± 0.8
Geogenic Gas	9.0	± 3.7	4.7	± 2.4	9.0	± 4.6	5.4	± 2.4	8.0	± 3.0	4.6	± 2.6
Petroleum Gas	7.2	± 2.3	4.6	± 1.6	6.7	± 2.5	13.0	± 3.6	6.8	± 1.8	6.5	± 1.7
Unidentified	10.6	± 4.3	2.1	± 2.1	10.5	± 5.9	11.2	± 4.7	22.5	± 8.2	11.2	± 4.8
Calculated Mass	100.0	± 12.1	100.0	± 11.1	100.0	± 15.2	100.0	± 10.9	100.0	± 11.2	100.0	± 11.2
Measured Mass	100.0	± 3.6	96.2	± 3.2	97.7	± 4.5	97.6	± 3.9	99.9	± 4.6	97.3	± 3.5

Table 7-6g (Continued)
Average Source Contributions at the Long Beach Site

Source Category	7000	9000	Fall 1200	1400	Fall 1600	
SCE (ug/m³)						
Unexplained	-160.6	± 367.4	-78.3	± 131.9	-44.5	± 92.9
Exhaust	1837.4	± 283.0	580.8	± 100.8	371.7	± 65.1
Liquid Gasoline	455.1	± 207.4	81.1	± 70.8	83.8	± 49.2
Gasoline Vapor	215.0	± 61.2	61.6	± 23.4	96.5	± 21.6
Arch. Coating	12.4	± 6.5	4.4	± 2.4	4.1	± 1.7
Degreasing	53.3	± 11.1	13.6	± 3.7	18.9	± 3.9
Biogenic	3.6	± 2.1	0.8	± 0.8	0.4	± 0.5
Natural Gas	45.3	± 23.7	3.9	± 2.0	9.9	± 7.8
Geogenic Gas	93.9	± 44.0	53.6	± 28.9	58.3	± 24.2
Petroleum Gas	65.5	± 22.0	25.7	± 10.8	25.9	± 9.4
Unidentified	0.0	± 0.0	21.1	± 11.3	38.7	± 18.1
Calculated Mass	2781.4	± 360.5	846.4	± 129.7	708.2	± 90.6
Measured Mass	2620.9	± 70.9	768.1	± 23.9	663.7	± 20.7
Number in Average	2		2	4	1	3
SCE (% of Calculated Mass)						
Unexplained	-5.8	± 13.2	-9.2	± 15.6	-6.3	± 13.1
Exhaust	66.1	± 10.2	68.6	± 11.9	52.5	± 9.2
Liquid Gasoline	16.4	± 7.5	9.6	± 8.4	11.8	± 7.0
Gasoline Vapor	7.7	± 2.2	7.3	± 2.8	13.6	± 3.1
Arch. Coating	0.4	± 0.2	0.5	± 0.3	0.6	± 0.2
Degreasing	1.9	± 0.4	1.6	± 0.4	2.7	± 0.6
Biogenic	0.1	± 0.1	0.1	± 0.1	0.1	± 0.1
Natural Gas	1.6	± 0.9	0.5	± 0.2	1.4	± 1.1
Geogenic Gas	3.4	± 1.6	6.3	± 3.4	8.2	± 3.4
Petroleum Gas	2.4	± 0.8	3.0	± 1.3	3.7	± 1.3
Unidentified	0.0	± 0.0	2.5	± 1.3	5.5	± 2.6
Calculated Mass	100.0	± 13.0	100.0	± 15.3	100.0	± 12.8
Measured Mass	94.2	± 2.5	90.8	± 2.8	93.7	± 2.9

Table 7-6h
Average Source Contributions at the Rubidoux Site

Source Category	Summer			Fall								
	600	1100	1500	700	1200	1600						
SCE (ug/m³)												
Unexplained	-26.4	± 69.7	-25.6	± 27.7	-23.9	± 29.4	-95.8	± 121.7	-15.5	± 28.8	-26.4	± 45.8
Exhaust	392.9	± 55.1	156.1	± 18.2	136.3	± 19.4	756.6	± 89.2	123.1	± 18.8	194.6	± 33.9
Liquid Gasoline	72.8	± 30.3	6.0	± 7.5	8.1	± 10.3	172.2	± 64.6	29.3	± 15.4	51.8	± 24.3
Gasoline Vapor	53.6	± 14.6	40.2	± 7.7	34.4	± 8.1	65.4	± 22.6	27.7	± 6.6	20.5	± 8.3
Arch. Coating	3.5	± 1.7	1.6	± 0.8	1.3	± 0.7	6.0	± 2.8	0.9	± 0.7	1.2	± 0.9
Degreasing	8.4	± 2.4	6.7	± 1.6	6.6	± 1.6	16.2	± 4.0	4.3	± 1.3	8.7	± 2.2
Biogenic	0.6	± 0.5	0.3	± 0.3	0.4	± 0.3	1.3	± 0.9	0.3	± 0.3	0.2	± 0.3
Natural Gas	8.8	± 4.3	2.8	± 1.8	5.9	± 2.9	0.0	± 0.0	0.6	± 0.6	0.0	± 0.0
Geogenic Gas	12.0	± 8.6	14.6	± 7.2	14.2	± 7.9	0.0	± 0.0	0.0	± 0.0	20.9	± 10.2
Petroleum Gas	27.5	± 6.4	13.3	± 3.6	17.0	± 4.8	52.7	± 10.7	9.4	± 2.0	14.8	± 5.0
Unidentified	24.7	± 15.3	30.6	± 13.0	25.3	± 11.8	41.2	± 32.2	22.7	± 11.0	7.4	± 7.3
Calculated Mass	604.8	± 67.4	272.2	± 26.2	249.5	± 28.0	1111.6	± 117.6	218.4	± 27.6	320.1	± 44.7
Measured Mass	578.4	± 17.7	246.6	± 8.9	225.6	± 9.0	1015.7	± 31.3	202.9	± 8.0	293.7	± 10.0
Number in Average	7		7		7		5		5		4	
SCE (% of Calculated Mass)												
Unexplained	-4.4	± 11.5	-9.4	± 10.2	-9.6	± 11.8	-8.6	± 10.9	-7.1	± 13.2	-8.2	± 14.3
Exhaust	65.0	± 9.1	57.3	± 6.7	54.6	± 7.8	68.1	± 8.0	56.4	± 8.6	60.8	± 10.6
Liquid Gasoline	12.0	± 5.0	2.2	± 2.7	3.2	± 4.1	15.5	± 5.8	13.4	± 7.1	16.2	± 7.6
Gasoline Vapor	8.9	± 2.4	14.8	± 2.8	13.8	± 3.2	5.9	± 2.0	12.7	± 3.0	6.4	± 2.6
Arch. Coating	0.6	± 0.3	0.6	± 0.3	0.5	± 0.3	0.5	± 0.3	0.4	± 0.3	0.4	± 0.3
Degreasing	1.4	± 0.4	2.4	± 0.6	2.7	± 0.6	1.5	± 0.4	2.0	± 0.6	2.7	± 0.7
Biogenic	0.1	± 0.1	0.1	± 0.1	0.2	± 0.1	0.1	± 0.1	0.1	± 0.1	0.1	± 0.1
Natural Gas	1.5	± 0.7	1.0	± 0.7	2.3	± 1.2	0.0	± 0.0	0.3	± 0.3	0.0	± 0.0
Geogenic Gas	2.0	± 1.4	5.3	± 2.7	5.7	± 3.2	0.0	± 0.0	0.0	± 0.0	6.5	± 3.2
Petroleum Gas	4.5	± 1.1	4.9	± 1.3	6.8	± 1.9	4.7	± 1.0	4.3	± 0.9	4.6	± 1.6
Unidentified	4.1	± 2.5	11.2	± 4.8	10.1	± 4.7	3.7	± 2.9	10.4	± 5.0	2.3	± 2.3
Calculated Mass	100.0	± 11.1	100.0	± 9.6	100.0	± 11.2	100.0	± 10.6	100.0	± 12.7	100.0	± 14.0
Measured Mass	95.6	± 2.9	90.6	± 3.3	90.4	± 3.6	91.4	± 2.8	92.9	± 3.7	91.8	± 3.1

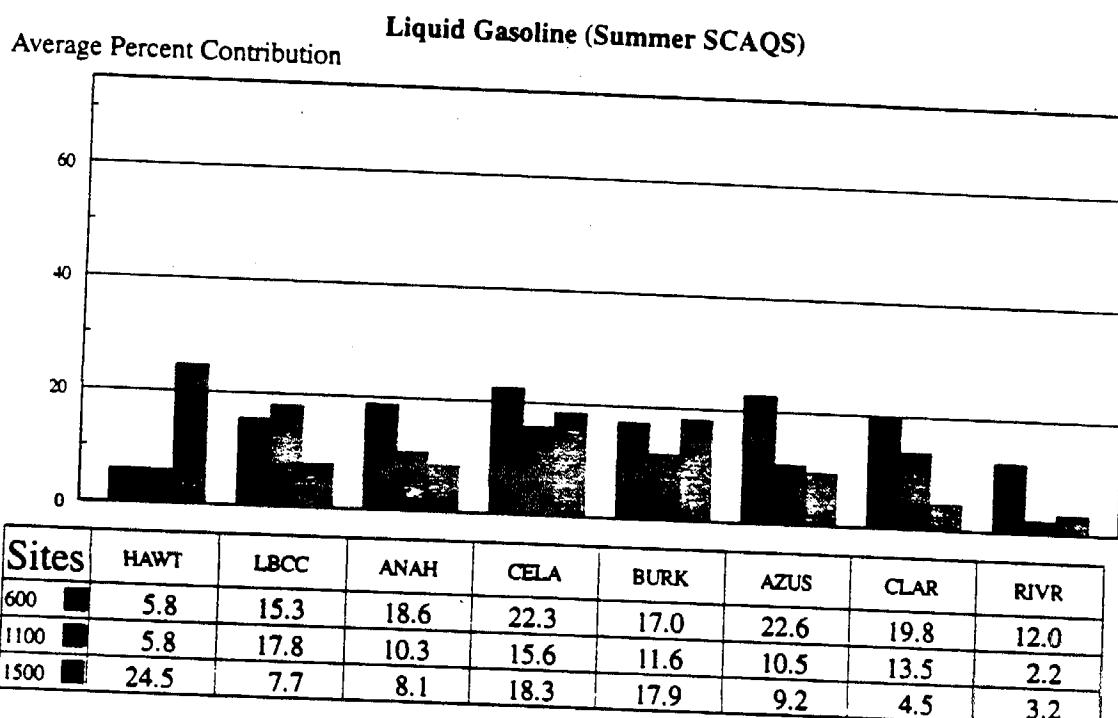
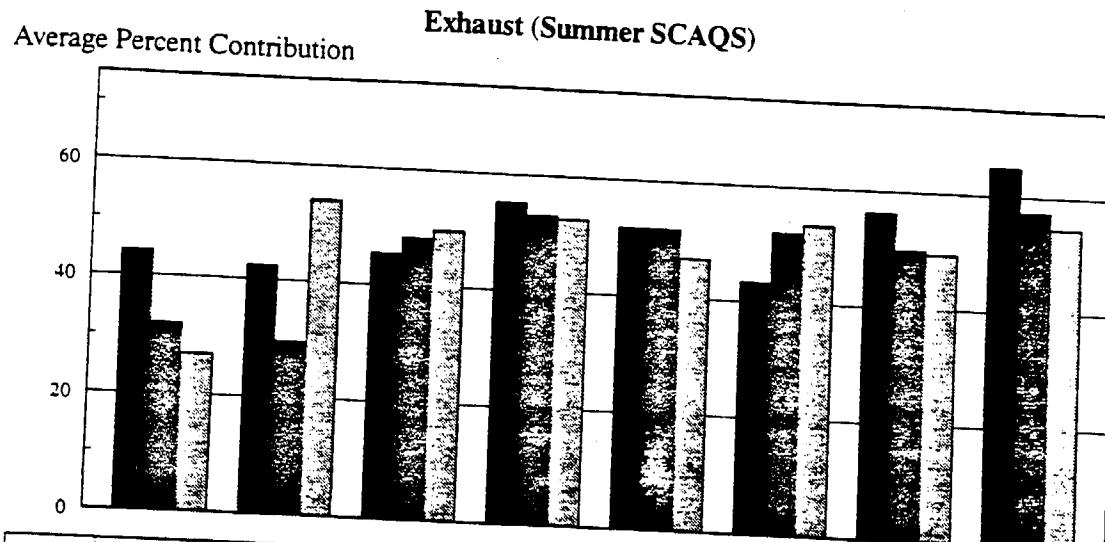
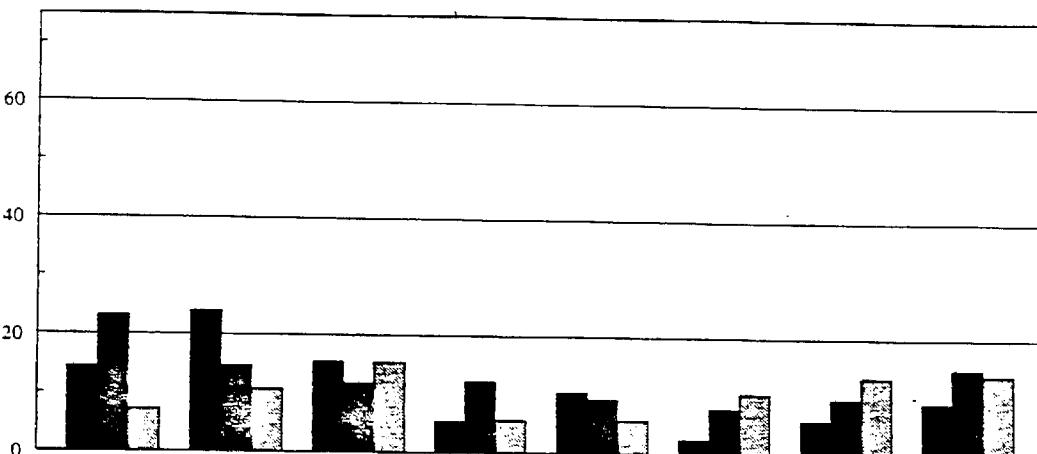


Figure 7-6a. Spatial and Temporal Patterns in Contributions of Exhaust and Liquid Gasoline to Total NMHC During the Summer Campaign

Average Percent Contribution



Average Percent Contribution

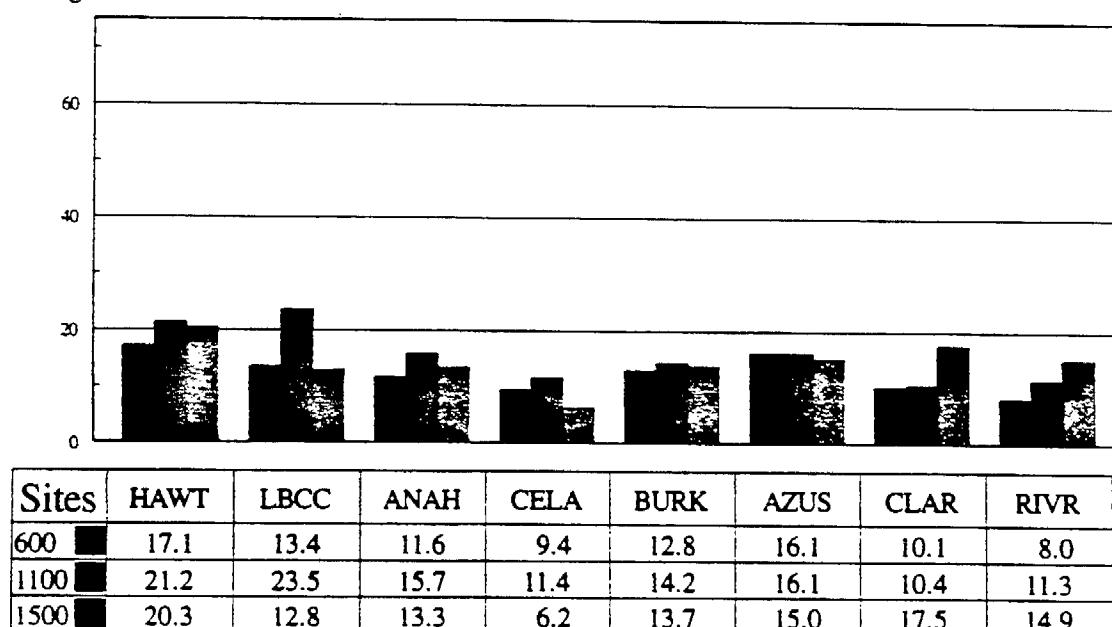


Figure 7-6b. Spatial and Temporal Patterns in Contributions of Gasoline Vapor and Gas Leaks to Total NMHC During the Summer Campaign

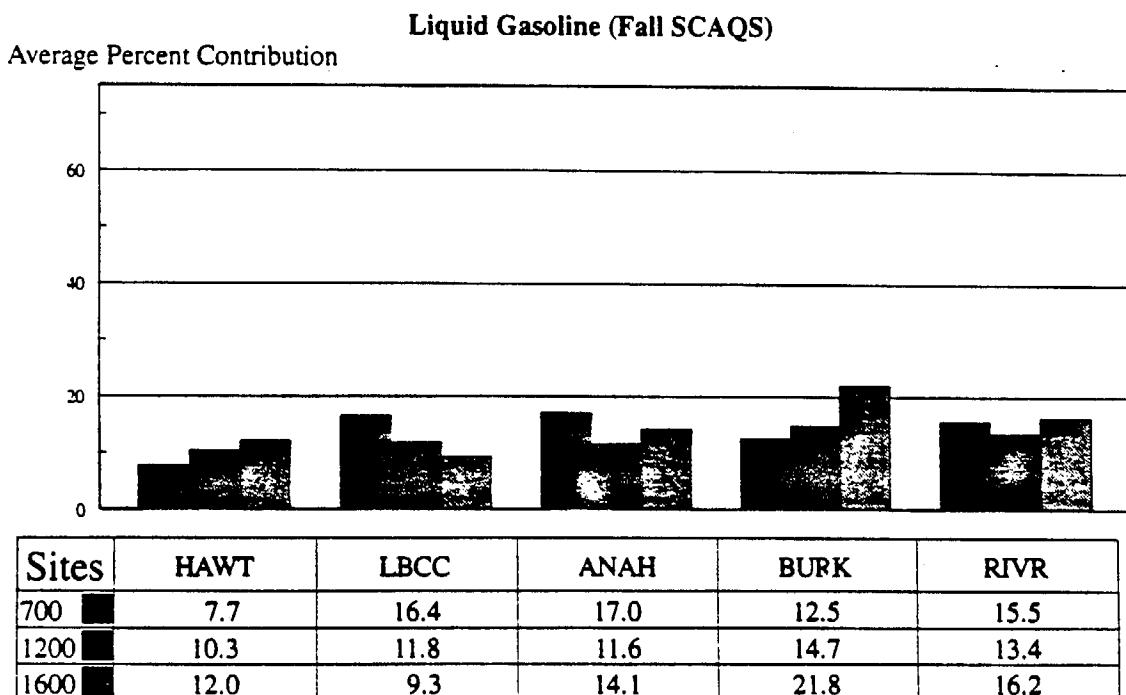
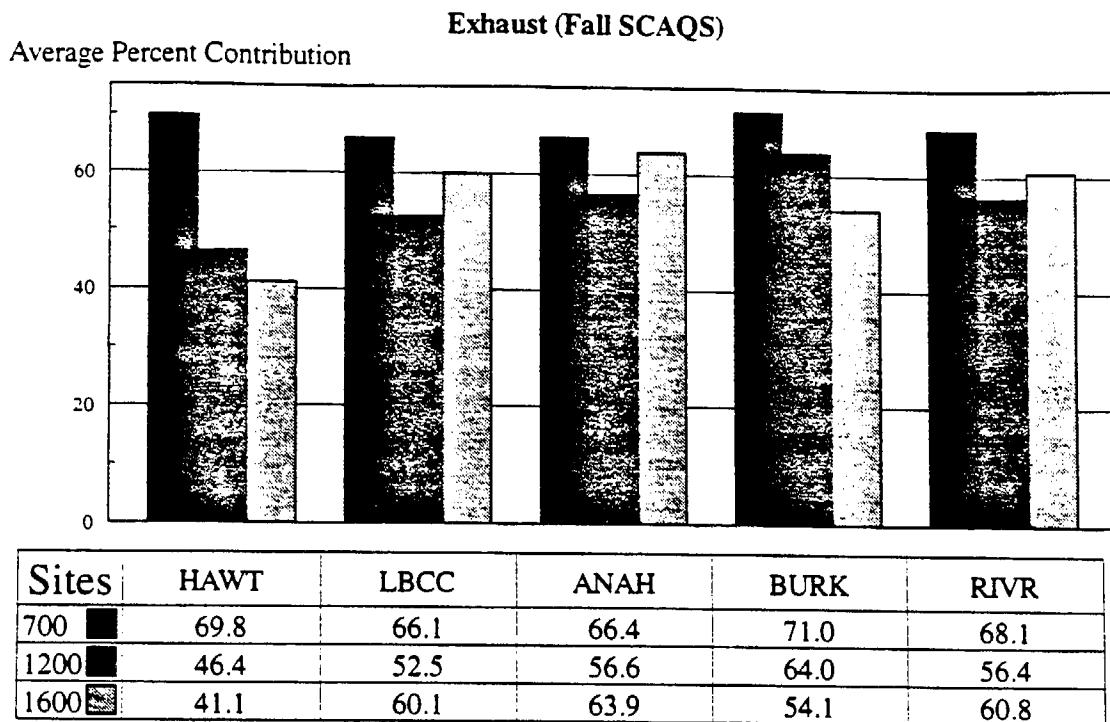
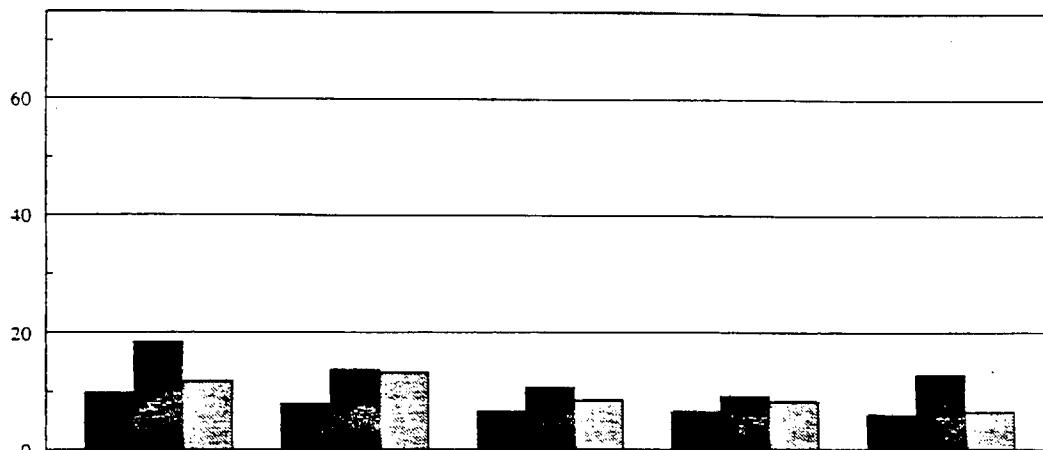


Figure 7-7a. Spatial and Temporal Patterns in Contributions of Exhaust and Liquid Gasoline to Total NMHC During the Fall Campaign

Gasoline Vapor (Fall SCAQS)

Average Percent Contribution



N,G & P Gas (Fall SCAQS)

Average Percent Contribution

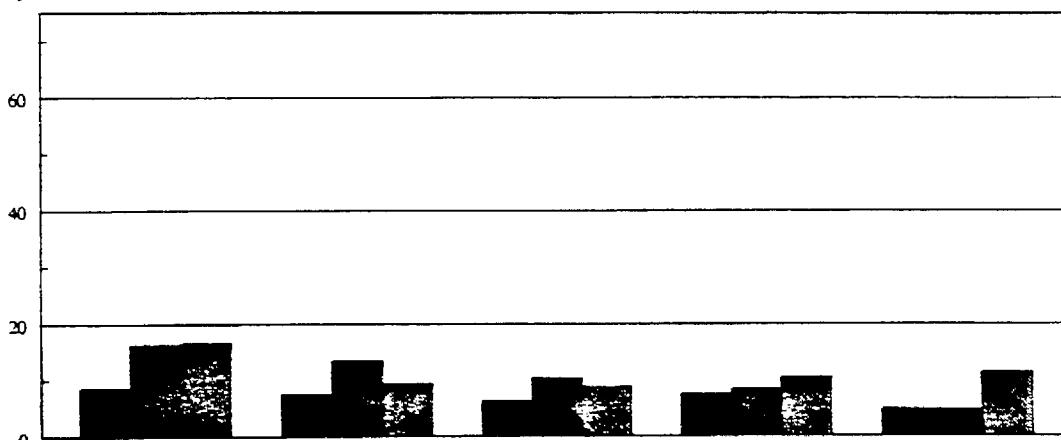


Figure 7-7b. Spatial and Temporal Patterns in Contributions of Gasoline Vapor and Gas Leaks to Total NMHC During the Fall Campaign

the freeway plume away from the sampling site. As a result, the VOC composition of afternoon samples collected at the Hawthorne site resembles that of a background site rather than a traffic-dominated site.

Aside from the anomalous results for the afternoon samples at the Hawthorne site, contributions from liquid gasoline are higher in the morning at all sites and higher in the central part of the basin. Contributions from gasoline vapor are higher in the western SoCAB, lowest in the central SoCAB, and higher in the afternoon in the eastern SoCAB. This pattern is the opposite of the pattern for liquid gasoline contributions. The combined contribution from commercial natural gas, geogenic natural gas, and liquefied petroleum gas has the same pattern as gasoline vapor.

8.0 CONCLUSIONS AND RECOMMENDATIONS

The SCAQS aerosol data set has been extensively evaluated in this study. The spatial and temporal distributions of PM_{2.5} and PM₁₀ mass have been studied, as have variations in nitrate and carbon species. Source profiles for the dominant particulate and organic emissions sources in the SoCAB were assembled, and the CMB receptor model was applied to PM_{2.5}, PM₁₀ (PM_{2.5} plus coarse), and VOC data sets. Conclusions are drawn with regard to each of the SCAQS objectives listed in Section 1.

8.1 Conclusions

The first objective was to evaluate the validity of methods for measuring PM_{2.5}, PM₁₀, and precursor species. Findings with respect to this objective are:

- Carbon and elemental measurements are negatively biased by ~20% owing to inhomogeneous aerosol deposits on the SCAQS filters and analysis methods which were applied to a portion of the filters. These biases seem relatively consistent and do not affect overall study conclusions.
- The organic to elemental carbon ratios during SCAQS differ from those found in earlier studies. This is due to differences in analytical methods rather than due to changes in aerosol composition.
- Significant fractions (30% to 60%) of ammonium nitrate volatilize during sampling when temperatures are high during the summer. Less than 10% typically volatilizes during the fall when temperatures are lower.

The second objective was to describe the spatial, temporal, size distributions, and chemical and physical characteristics of suspended particles less than 10 μm in aerodynamic diameter. Findings related to this objective are:

- The 24-hour federal PM₁₀ standard was exceeded only at the Rubidoux site during the summer campaign. This 164 $\mu\text{g}/\text{m}^3$ PM₁₀ exceedance occurred on August 28, 1987. Daily PM₁₀ exceedances were more widespread during the fall campaign, and occurred at five sites on December 3, 1987: 162 $\mu\text{g}/\text{m}^3$ at the Burbank site; 157 $\mu\text{g}/\text{m}^3$ at the Downtown Los Angeles site; 194 $\mu\text{g}/\text{m}^3$ at the Long Beach site; 203 $\mu\text{g}/\text{m}^3$ at the Anaheim site; and 229 $\mu\text{g}/\text{m}^3$ at the Rubidoux site. The PM_{2.5} fraction exceeded 150 $\mu\text{g}/\text{m}^3$ on December 3, 1987 at every site except Downtown Los Angeles and Hawthorne.

- PM_{2.5} constituted one-half to two-thirds of PM₁₀ at all sampling sites. The PM_{2.5} portion of PM₁₀ was higher during fall than during summer.
- The most abundant species (generally $> 1 \mu\text{g}/\text{m}^3$) in PM₁₀ at all sites were chloride, nitrate, sulfate, ammonium, sodium, organic carbon, elemental carbon, calcium, and iron.
- Sodium, aluminum, silicon, calcium, and iron were abundant only in the PM₁₀ fraction, consistent with their presence in marine aerosol (sodium) and suspended dust (aluminum, silicon, calcium, and iron).
- Average concentrations for all species were generally higher in fall than in summer. The exception was sulfate, where the summer averages were nearly twice the fall averages at the six sites which operated during both seasons.

The third objective was to determine the contribution of trace metals to atmospheric aerosols in source and receptor areas as a function of particle size. Findings related to this objective are:

- Potentially toxic trace metal concentrations measured during SCAQS were low. The maximum 24-hour concentrations observed at all sites in the PM₁₀ fraction were: 1) 0.019 $\mu\text{g}/\text{m}^3$ of vanadium at the Hawthorne site; 2) 0.064 $\mu\text{g}/\text{m}^3$ of chromium at the Hawthorne site; 3) 0.137 $\mu\text{g}/\text{m}^3$ of manganese at the Rubidoux site; 4) 0.033 $\mu\text{g}/\text{m}^3$ of nickel at the Anaheim site and 0.031 $\mu\text{g}/\text{m}^3$ at the Hawthorne site; 5) 0.38 $\mu\text{g}/\text{m}^3$ of copper at the Hawthorne site; 6) 0.667 $\mu\text{g}/\text{m}^3$ of zinc at the Hawthorne site; 7) 0.032 $\mu\text{g}/\text{m}^3$ of arsenic at the Downtown Los Angeles site; 8) 0.023 $\mu\text{g}/\text{m}^3$ of selenium at the Burbank site; 9) 0.042 $\mu\text{g}/\text{m}^3$ of strontium at the Burbank and Hawthorne sites; 10) 0.020 $\mu\text{g}/\text{m}^3$ of barium at the Downtown Los Angeles site; 11) 0.02 to 0.03 $\mu\text{g}/\text{m}^3$ of mercury at all sites; and 12) 0.46 $\mu\text{g}/\text{m}^3$ of lead at the Long Beach site. Many of these maxima were at or near instrumental detection limits. All of these maximum concentrations occurred during the fall campaign.
- The quarterly lead standard of 1.5 $\mu\text{g}/\text{m}^3$ was never exceeded on any of the SCAQS samples.

The fourth objective was to determine which chemical and physical properties of ambient concentrations and source emissions are most useful for source attribution of receptor concentrations. This applies to the source attribution of PM_{2.5}, PM₁₀, and VOCs. Findings from this study are:

- SCAQS chemical measurements were sufficient to resolve PM_{2.5} and PM₁₀ source contributions of primary geological material, primary motor vehicle exhaust, primary marine aerosol, primary lime/gypsum/construction dust, and secondary sulfates and nitrates.
- SCAQS chemical measurements were sufficient to determine that industrial sources and vegetative burning were not major contributors to suspended particles during summer and fall.
- SCAQS chemical measurements were insufficient to: 1) separate secondary organic aerosols and cooking contributions from other source types; 2) allow different types of fugitive dust to be resolved; and 3) distinguish gasoline-fueled vehicle exhaust from diesel-fueled vehicle exhaust.
- Ratios of ethene to ethyne in the vehicle exhaust profiles are twice the ethene/ethyne ratios in ambient samples collected during the morning when exhaust is fresh and photochemical reactions are minimal. Since vehicle exhaust is the primary source for both species, the ethene/ethyne ratio in ambient air and in vehicle exhaust should agree. This discrepancy can significantly affect the receptor model source contribution estimates for vehicle exhaust.
- Hydrocarbons with reactivity equal to or less than toluene were sufficiently stable to be used as fitting species in the CMB analysis. More reactive species should not be used.
- There are significant amounts of propane in the western part of the basin (especially at the Hawthorne site) which are not related to gasoline or vehicle exhaust. The contribution of propane to nonmethane hydrocarbon (NMHC) increases in the afternoon in the eastern part of the basin. Source profiles containing propane are needed to explain these concentrations.
- Vehicle exhaust and liquid gasoline are partially collinear since they consist of many of the same species. Exhaust emissions are actually a mixture of hydrocarbons produced during combustion (e.g., ethene and ethyne) along with unburned gasoline resulting from incomplete combustion. Liquid gasoline represents the additional unburned gasoline (due to misfiring and other engine malfunctions) that is not included in the exhaust profile, plus evaporative emissions from gasoline spillage and hot soaks.
- The source contribution between vehicle exhaust and liquid gasoline depends upon the relative abundance of ethyne (combustion products) in the source profile relative to fitting species that are associated with uncombusted gasoline. Vehicle exhaust profiles that have a higher fraction of ethyne than the base case yield lower source contributions for vehicle exhaust and the difference is assigned to

liquid gasoline. Some of the "real-world" factors that affect the ethyne abundance include: the relative contributions of non-catalyst vehicles versus catalyst-equipped vehicles; contributions of high emitters; and variations in driving modes.

- Profiles derived from gasoline headspace vapors reflect evaporative emissions due to refueling, diurnal emissions, and running loss. There is substantial collinearity between the profiles for vehicle exhaust, liquid gasoline, gasoline vapor, and geogenic natural gas. If the Auto/Oil hot soak and diurnal evaporative emissions profiles are substituted for liquid gasoline and gasoline vapor, nearly half of the mass originally assigned to the two gasoline source profiles is assigned in roughly equal portions to vehicle exhaust and geogenic natural gas.
- Using commercial natural gas, geogenic natural gas, and liquefied petroleum gas together provides better model performance than any one of the profiles alone. The individual source contributions from the three gas profiles should be combined since they all contain ethane and propane as the main species and are collinear with each other. The combined source can be interpreted as an ethane-and propane-enriched source.
- Since ethene is a combustion product, adding it to the CMB fit has the same effect as using vehicle exhaust profiles with higher fractions of ethyne. The contribution of vehicle exhaust is reduced and re-assigned to liquid gasoline. Since ethene is over-represented in the profile relative to ethyne, retaining ethene in the fit and removing ethyne increases the shift in the source apportionment to liquid gasoline.

The fifth objective was to quantify the amounts and uncertainties of source contributions estimated by receptor models as a function of chemical and physical properties used to characterize sources. This applies to PM_{2.5}, PM₁₀, and VOCs. The major findings of this study are:

- Primary geological material was the major contributor to PM₁₀ during summer at the eastern sites, and its average source contributions at the Rubidoux and Azusa sites were approximately five times the primary geological material contribution at the Hawthorne site. Primary geological material contributions were significantly lower during the fall, with the exception of contributions at the Rubidoux site. The primary construction contribution nearly equals the primary geological contribution during the fall. Rubidoux was the only site with the lime/gypsum contribution. The predominant source of primary geological material was paved road dust. The largest primary geological material contribution of $51 \pm 5 \mu\text{g}/\text{m}^3$ was found at the Azusa site on August 28, 1987 when PM₁₀ was $120 \mu\text{g}/\text{m}^3$.

- Primary motor vehicle exhaust was generally the second largest contributor, except at the Rubidoux, Hawthorne, and Long Beach sites during summer. The average contributions at the Burbank, Downtown Los Angeles, Rubidoux, Azusa, and Claremont sites were two to three times the average contributions at the Hawthorne, Long Beach, and Anaheim sites. Primary motor vehicle exhaust was the major contributor at all sites, even at the Hawthorne, Long Beach, and Anaheim sites which showed much lower contributions from this source during the summer. The largest primary motor vehicle exhaust contribution of $74 \pm 31 \mu\text{g}/\text{m}^3$ was found at the Long Beach site on December 3, 1987 when PM_{10} was $194 \mu\text{g}/\text{m}^3$.
- During summer, secondary ammonium sulfate contributions were fairly uniform across the SoCAB. During fall, secondary ammonium sulfate contributed uniformly across the SoCAB, but its average contribution was less than half that found during the summer. The largest secondary ammonium sulfate contribution of $27 \pm 9 \mu\text{g}/\text{m}^3$ was measured at the Hawthorne site on June 24, 1987 when PM_{10} was $75 \mu\text{g}/\text{m}^3$.
- Primary marine aerosol also showed a fairly homogeneous distribution across the SoCAB during summer, including its contribution at the San Nicolas Island site. During fall, the primary marine aerosol contribution was lower than during summer and was substantially lower at the inland sites relative to the sites near the coast. The largest primary marine aerosol contribution of $11 \pm 2 \mu\text{g}/\text{m}^3$ was found at the Long Beach site on September 2, 1987 when PM_{10} was $65 \mu\text{g}/\text{m}^3$.
- Secondary ammonium nitrate at the Rubidoux site was five to ten times larger than averages measured at the other sites during summer. During fall, secondary ammonium nitrate was the second largest contributor at all sites, even at the Hawthorne site. The largest secondary ammonium nitrate contribution of $96 \pm 18 \mu\text{g}/\text{m}^3$ was found at the Anaheim site on December 3, 1987 when PM_{10} was $203 \mu\text{g}/\text{m}^3$.
- Temporal and spatial uniformity in ratios of hydrocarbons normally associated with vehicle exhaust and gasoline with carbon dioxide and NMHC indicated that vehicle-related emissions were the major source of NMHC in the SoCAB, and that these profiles must be used for CMB source apportionment.
- Vehicle exhaust was the main source of NMHC at all sites and time periods, ranging from 30% to 70% of NMHC. The relative contributions of vehicle exhaust were greater during fall, particularly for the morning samples (66% to 71% in the fall versus 42% to 65% in the summer). This seasonal difference was consistent with the reactive organic gas emissions inventory, which shows higher relative contribution from vehicle exhaust during the fall than during the summer.

- Ignoring anomalous results for afternoon samples at the Hawthorne site, the contribution of liquid gasoline was greater in the morning samples at most sites during summer, and was higher in the central part of the basin (15% to 23%) and lower in the afternoon in the eastern part of the basin (2% to 5%). The relative contribution of liquid gasoline was more uniform, spatially and temporally, during fall.
- Contributions from gasoline vapor were higher in the western part of the basin during the morning and mid-day periods (15% to 24%), lowest in the central basin (2% to 12%), and higher in the afternoon in the eastern basin (10% to 15%). The combined contributions of commercial natural gas, geogenic natural gas, and liquefied petroleum gas have the same pattern as gasoline vapor.
- Contributions from architectural and industrial coatings were both negligible, which is consistent with the strong correlation in the ambient data between toluene and carbon monoxide. The CMB analysis did not include oxygenated organic compounds, which in many cases account for the majority of the solvent content of surface coatings and domestic solvents. The contribution of this source type to VOC cannot be ascertained until composition profiles are developed for these sources.
- The sum of the individual calculated source contributions and the measured ambient NMHC indicates that all major source types were included in the calculations, that the ambient and source profile measurements were reasonably accurate, and that the source profiles were reasonably representative of the actual emissions.

The final objective was to determine the portions of $\text{PM}_{2.5}$ and PM_{10} which are of primary and secondary origin.

- On average, secondary ammonium sulfate and secondary ammonium nitrate contributed 20% to 32% of the PM_{10} during summer and 20% to 38% of PM_{10} during fall. These secondary contributors typically accounted for one-half to two-thirds of $\text{PM}_{2.5}$.
- Secondary organic carbon was not detectable in the SCAQS aerosol data set. Other studies performed during SCAQS showed that up to 40% of the organic carbon measured in the afternoon samples might be of secondary origin. This is expected only during summer episodes with intense photochemistry and in the eastern SoCAB. If they exist, secondary organic carbon contributions to 24-hour PM_{10} are small.
- During the summer, secondary ammonium nitrate contribution appears to be ammonia-limited at every site except Rubidoux. This is not the case during the

fall, when it is not known whether the secondary ammonium nitrate is limited by ammonia or nitric acid precursors.

8.2 Recommendations

The SCAQS aerosol and VOC ambient data sets are among the best ever acquired in the SoCAB or elsewhere. The measurement techniques were on the cutting edge of current measurement technology, and though some minor discrepancies exist, these are not sufficient to preclude quantitative conclusions regarding the sources which contribute to suspended particles and VOCs.

Several additional studies need to be conducted in the SoCAB to resolve some outstanding issues regarding the apportionments of SCAQS data. These include:

- Comprehensive source profiles for VOC emissions sources are needed. Measurements need to be made on a representative sample of vehicle exhausts, liquid gasolines, gasoline vapors, surface coatings, waste containers, and gas leaks (natural gas, liquid propane, and geogenic emissions). The species measured need to be complete and consistent with those in the ambient data base. Sufficient samples are needed such that uncertainties as well as abundances of VOCs in NMHC can be estimated.
- PM_{2.5} profiles for motor vehicle exhaust need to be improved. Samples must be taken under real-world operating conditions with on-road vehicles. Diesel- and gasoline-powered vehicles should be characterized so that chemical differences between their emissions can be sought.
- Long-term ambient sampling for particulate organic compound analysis is needed. Compound-specific source profiles are needed to definitively allow secondary organic particles and cooking emissions to be distinguished from motor vehicle exhaust by receptor models.
- Additional emissions surveys and source profile experiments for fugitive dust near the Rubidoux site need to be conducted. Calcium-enriched fugitive dust makes its maximum contribution at night.
- Chemical equilibrium models should be applied to the SCAQS aerosol data. The nitric acid, ammonia, and ammonium nitrate data are consistent and follow the general phase distribution expected from changes in temperature. The data set should be adequate to validate existing equilibrium models.

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APPENDIX A

**LEVEL II DATA VALIDATION SUMMARY
FOR SCAQS GASEOUS AND AEROSOL DATA BASE**

Table A-1
Comparisons Between PM_{2.5} and PM₁₀ Mass and Chemical Composition*

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} Mass</u>	<u>σ_{PM2.5} Mass</u>	<u>PM₁₀ Mass</u>	<u>σ_{PM10} Mass</u>
Anaheim	11/13/87	10	57.42	4.35	47.55	4.26
Burbank	12/11/87	0	67.25	2.77	52.97	2.76
Downtown Los Angeles	11/11/87	0	55.82	2.80	35.24	2.72
Downtown Los Angeles	11/11/87	6	39.16	4.29	28.73	4.23
Downtown Los Angeles	11/12/87	0	57.59	2.83	36.11	2.72
Downtown Los Angeles	11/12/87	6	66.34	4.34	50.34	4.24
Downtown Los Angeles	11/13/87	0	120.40	2.93	108.72	2.83
Hawthorne	06/24/87	17	54.94	2.27	46.25	2.23
Hawthorne	08/29/87	13	152.64	4.00	54.60	3.90
Long Beach	06/19/87	5	52.22	4.04	39.98	4.04
Long Beach	12/10/87	18	43.58	2.93	20.53	2.88
San Nicolas Island	07/15/87	17	14.81	2.29	4.85	2.24
San Nicolas Island	08/28/87	17	30.89	2.27	17.93	2.14

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} Cl⁻</u>	<u>σ_{PM2.5} Cl⁻</u>	<u>PM₁₀ Cl⁻</u>	<u>σ_{PM10} Cl⁻</u>
Burbank	07/13/87	17	0.2500	0.0700	0.0000	0.0600
Rubidoux	11/12/87	0	1.0300	0.0800	0.5300	0.0800
San Nicolas Island	08/28/87	17	0.8500	0.0600	0.0000	0.0600

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} NO₃⁻</u>	<u>σ_{PM2.5} NO₃⁻</u>	<u>PM₁₀ NO₃⁻</u>	<u>σ_{PM10} NO₃⁻</u>
Anaheim	12/11/87	10	65.0900	0.5600	57.7000	0.5400
Burbank	11/11/87	18	3.3100	0.3400	0.6300	0.3100
Rubidoux	11/12/87	14	31.1600	0.5700	4.0400	0.5000
Rubidoux	12/03/87	18	165.0700	3.7600	146.4000	2.1800
San Nicolas Island	08/28/87	17	2.1500	0.1200	0.3700	0.0900

Table A-1 (continued)
Comparisons Between PM_{2.5} and PM₁₀ Mass and Chemical Composition

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u>	<u>$\sigma_{PM_{2.5}}$</u>	<u>PM₁₀</u>	<u>$\sigma_{PM_{10}}$</u>
			<u>SO₄⁻</u>	<u>SO₄⁻</u>	<u>SO₄⁻</u>	<u>SO₄⁻</u>
Burbank	11/11/87	18	1.1000	0.1500	0.5900	0.0900
Hawthorne	06/25/87	9	19.2900	0.2700	8.4500	0.1500
Rubidoux	11/12/87	14	2.2500	0.2400	0.8100	0.1500
<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u>	<u>$\sigma_{PM_{2.5}}$</u>	<u>PM₁₀</u>	<u>$\sigma_{PM_{10}}$</u>
			<u>NH₄⁺</u>	<u>NH₄⁺</u>	<u>NH₄⁺</u>	<u>NH₄⁺</u>
Azusa	07/15/87	17	4.3300	0.0800	1.5800	0.1100
Burbank	08/27/87	9	5.2200	0.1500	3.6400	0.2000
Burbank	12/10/87	10	1.7700	0.1400	0.4500	0.1900
Claremont	07/15/87	13	6.5200	0.1500	3.5500	0.2000
Hawthorne	06/25/87	9	6.7400	0.1500	3.3500	0.1900
Hawthorne	08/28/87	9	7.0900	0.1800	5.7700	0.2300
Long Beach	06/24/87	5	8.5600	0.1500	5.6900	0.2000
Long Beach	08/28/87	9	10.1100	0.1600	6.8400	0.2000
Long Beach	09/02/87	5	5.1800	0.1500	2.2600	0.2000
Long Beach	09/02/87	17	4.4300	0.0800	1.8800	0.1100
Rubidoux	06/19/87	13	10.5700	0.1800	2.0400	0.2100
Rubidoux	08/27/87	5	13.4400	0.1900	8.3400	0.2200
Rubidoux	08/28/87	0	10.1300	0.1500	6.6000	0.1700
Rubidoux	08/28/87	5	11.7100	0.1900	8.0200	0.2200
Rubidoux	09/03/87	5	4.7900	0.1600	0.6100	0.2100
Rubidoux	11/13/87	0	10.2200	0.1200	6.0400	0.1400
Rubidoux	11/13/87	14	12.8500	0.1700	2.5200	0.2000
Rubidoux	12/03/87	6	10.9900	0.1600	7.5300	0.2100
Rubidoux	12/10/87	0	6.5600	0.1100	4.5100	0.1400
Rubidoux	12/10/87	6	2.4300	0.1500	0.0000	0.2000
Rubidoux	12/10/87	18	14.1900	0.1400	10.1400	0.1500
Rubidoux	12/11/87	0	6.1900	0.1100	4.2400	0.1400
Rubidoux	12/11/87	6	4.6700	0.1500	3.0000	0.2100

Table A-1 (continued)
Comparisons Between PM_{2.5} and PM₁₀ Mass and Chemical Composition

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} TC</u>	<u>$\sigma_{PM2.5}$ TC</u>	<u>PM₁₀ TC</u>	<u>σ_{PM10} TC</u>
Downtown Los Angeles	12/10/87	14	25.7900	2.0270	19.6300	1.6664
<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} OC</u>	<u>$\sigma_{PM2.5}$ OC</u>	<u>PM₁₀ OC</u>	<u>σ_{PM10} OC</u>
Burbank	12/10/87	6	23.4700	2.0900	16.5700	1.7200
Downtown Los Angeles	12/10/87	14	21.7000	2.0000	14.1700	1.6100
<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} Na</u>	<u>$\sigma_{PM2.5}$ Na</u>	<u>PM₁₀ Na</u>	<u>σ_{PM10} Na</u>
Burbank	12/11/87	6	0.1012	0.0379	0.0284	0.0284
Burbank	12/11/87	18	0.3103	0.0245	0.1746	0.0243
Downtown Los Angeles	11/11/87	0	0.1232	0.0246	0.0732	0.0239
Downtown Los Angeles	11/13/87	6	0.8610	0.0494	0.6726	0.0386
Downtown Los Angeles	12/03/87	6	0.4580	0.0417	0.0727	0.0387
Downtown Los Angeles	12/03/87	10	0.2985	0.0396	0.0154	0.0369
Downtown Los Angeles	12/10/87	0	0.2070	0.0244	0.0433	0.0236
Downtown Los Angeles	12/10/87	6	0.2380	0.0393	0.0272	0.0272
Downtown Los Angeles	12/10/87	10	0.2587	0.0384	0.0260	0.0260
Downtown Los Angeles	12/11/87	0	0.2991	0.0260	0.0486	0.0243
Downtown Los Angeles	12/11/87	6	0.3633	0.0405	0.1654	0.0387
Downtown Los Angeles	12/11/87	10	0.4826	0.0415	0.2193	0.0379
Hawthorne	06/19/87	17	0.5328	0.0772	0.0651	0.0732
<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} S</u>	<u>$\sigma_{PM2.5}$ S</u>	<u>PM₁₀ S</u>	<u>σ_{PM10} S</u>
Hawthorne	08/29/87	17	2.1143	0.0542	1.1245	0.0471

Table A-1 (continued)
Comparisons Between PM_{2.5} and PM₁₀ Mass and Chemical Composition

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u> <u>K</u>	<u>$\sigma_{PM2.5}$</u> <u>K</u>	<u>PM₁₀</u> <u>K</u>	<u>σ_{PM10}</u> <u>K</u>
Long Beach	08/27/87	0	0.2284	0.0289	0.1299	0.0288
San Nicolas Island	08/28/87	17	0.2144	0.0188	0.1027	0.0173

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u> <u>Ca</u>	<u>$\sigma_{PM2.5}$</u> <u>Ca</u>	<u>PM₁₀</u> <u>Ca</u>	<u>σ_{PM10}</u> <u>Ca</u>
Hawthorne	07/14/87	13	0.4811	0.0676	0.0063	0.0622
Rubidoux	11/12/87	10	1.3478	0.3333	0.5236	0.3393
San Nicolas Island	08/28/87	13	0.3104	0.0708	0.1488	0.0655
San Nicolas Island	08/28/87	17	0.3918	0.0368	0.1448	0.0340

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u> <u>V</u>	<u>$\sigma_{PM2.5}$</u> <u>v</u>	<u>PM₁₀</u> <u>V</u>	<u>σ_{PM10}</u> <u>v</u>
Hawthorne	12/03/87	18	0.0116	0.0033	0.0044	0.0032
Long Beach	08/28/87	5	0.0221	0.0061	0.0050	0.0050

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u> <u>Fe</u>	<u>$\sigma_{PM2.5}$</u> <u>Fe</u>	<u>PM₁₀</u> <u>Fe</u>	<u>σ_{PM10}</u> <u>Fe</u>
Long Beach	08/27/87	0	0.4348	0.0614	0.2623	0.0617
San Nicolas Island	08/28/87	17	0.3359	0.0399	0.1486	0.0371

Table A-1 (continued)
Comparisons Between PM_{2.5} and PM₁₀ Mass and Chemical Composition

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u>	<u>$\sigma_{PM2.5}$</u>	<u>PM₁₀</u>	<u>σ_{PM10}</u>
			<u>Cu</u>	<u>Cu</u>	<u>Cu</u>	<u>Cu</u>
Burbank	12/11/87	14	0.4552	0.1183	0.1232	0.1181
Claremont	06/19/87	5	0.4137	0.1500	0.0060	0.0060
Claremont	08/28/87	17	0.3347	0.0916	0.0392	0.0941
Downtown Los Angeles	06/25/87	17	0.3439	0.0860	0.0030	0.0030
Downtown Los Angeles	07/15/87	17	0.6713	0.0887	0.0035	0.0035
Downtown Los Angeles	11/11/87	0	0.3794	0.0776	0.0524	0.0764
Downtown Los Angeles	11/13/87	6	0.5565	0.1212	0.1588	0.1171
Downtown Los Angeles	12/03/87	18	0.5118	0.0792	0.1092	0.0770
Hawthorne	06/24/87	9	0.4043	0.1583	0.0060	0.0060
Hawthorne	07/13/87	9	0.5306	0.1550	0.0050	0.0050
Hawthorne	07/14/87	5	0.5492	0.1563	0.0060	0.0060
Hawthorne	09/02/87	0	0.4612	0.1258	0.0050	0.0050
Hawthorne	11/13/87	6	0.3885	0.1257	0.1294	0.1220
Hawthorne	12/11/87	0	2.2358	0.0847	0.0717	0.0795

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5}</u>	<u>$\sigma_{PM2.5}$</u>	<u>PM₁₀</u>	<u>$\sigma_{PM2.5}$</u>
			<u>Cu</u>	<u>Cu</u>	<u>Cu</u>	<u>Cu</u>
Hawthorne	12/11/87	14	0.7517	0.1206	0.2360	0.1183
Hawthorne	12/11/87	18	0.7027	0.0826	0.2300	0.0800
Rubidoux	11/13/87	18	0.4538	0.0782	0.1242	0.0802
Rubidoux	12/10/87	18	0.3831	0.0767	0.0617	0.0796
San Nicolas Island	06/25/87	5	0.4626	0.1604	0.0055	0.0055
San Nicolas Island	08/29/87	0	0.6749	0.1119	0.1320	0.1054

^a List of samples for which mass and chemical species of PM_{2.5} > PM₁₀ ± 2 σ_{PM10} . For NH₄⁺, only the samples which have a difference greater than 1 $\mu\text{g}/\text{m}^3$ are listed. For TC, OC, and EC, only the samples which have a difference greater than 5 $\mu\text{g}/\text{m}^3$ are listed.

Table A-2
Comparison Between Sum of Species and Mass Concentrations of PM_{2.5} and PM₁₀

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM_{2.5} Mass</u>	<u>$\sigma_{PM_{2.5} \text{ Mass}}$</u>	<u>SPSUMC</u>	<u>σ_{SPSUMC}</u>
Anaheim	11/11/87	0	5.40	2.86	7.37	0.90
Azusa	08/28/87	9	29.81	4.00	54.43	2.14
Burbank	06/24/87	0	43.43	2.94	48.00	1.34
Hawthorne	09/02/87	13	8.36	3.98	12.38	1.22
Long Beach	11/13/87	14	9.83	4.43	12.89	1.33

<u>Sampling Site</u>	<u>Sampling Date</u>	<u>Start Time (PST)</u>	<u>PM₁₀ Mass</u>	<u>$\sigma_{PM_{10} \text{ Mass}}$</u>	<u>SPSUMC</u>	<u>σ_{SPSUMC}</u>
Burbank	11/13/87	14	112.75	4.26	141.93	2.14
Hawthorne	8/29/87	17	13.26	2.32	18.45	0.73
Long Beach	12/10/87	18	20.53	2.88	52.39	2.22

* List of samples for which Mass < Sum of Species (SPSUMC) $\pm 2\sigma$.

Table A-3
Comparisons Among Different Nitrate Measurements

I. List of Samples for Which Nitric Acid (HNO_3) Denuded Nitrate (NO_3^-) > Non-Nitric Acid (HNO_3) Denuded Nitrate (NO_3^-) $\pm 2\sigma$

Sampling Site	Sampling Date	Start Time (PST)	Nitric Acid		Non-Nitric Acid	
			Denuded Nitrate	$\sigma_{\text{NO}_3^-}$	Denuded Nitrate	$\sigma_{\text{NO}_3^-}$
Anaheim	08/28/87	17	20.89	0.59	11.22	0.58
Anaheim	12/03/87	0	110.49	1.45	87.10	1.22
Anaheim	12/03/87	6	100.59	1.61	93.78	1.64
Azusa	08/27/87	13	17.85	1.06	12.45	1.06
Long Beach	09/03/87	5	30.71	1.03	9.91	1.03
Long Beach	12/03/87	0	23.00	0.75	18.29	1.15

II. List of Samples for Which $\text{PM}_{2.5}$ Nitrate (NO_3^-) $\pm 2\sigma$ > Nitric Acid (HNO_3) denuded Nitrate (NO_3^-)

Sampling Site	Sampling Date	Start Time (PST)	Nitric Acid			
			PM_{2.5} Nitrate	$\sigma_{\text{NO}_3^-}$	Denuded Nitrate	$\sigma_{\text{NO}_3^-}$
Long Beach	12/03/87	6	61.58	0.65	58.70	1.25
Rubidoux	07/15/87	17	13.22	0.30	6.79	0.57
Rubidoux	11/11/87	14	18.30	0.55	15.89	1.21
Rubidoux	12/03/87	18	165.07	3.76	129.99	1.09

Table A-4
Comparisons Between Soluble Chloride and Chlorine

I. List of Samples for Which $PM_{2.5}$ Chloride (Cl^-) $\pm 2\sigma$ (analyzed by ion chromatography) > Chlorine (Cl) (analyzed by x-ray fluorescence)

Sampling	Sampling	Start		σ_{Cl^-}	Cl	σ_{Cl}
		Site	Date			
Anaheim	09/02/87		17	0.4200	0.0700	0.0005
Anaheim	09/03/87		0	0.3400	0.0900	0.0010
Azusa	08/28/87		0	0.4600	0.0900	0.1806
Burbank	07/14/87		0	0.4500	0.0900	0.1690
Burbank	09/03/87		0	0.6800	0.0900	0.0617
Burbank	12/11/87		18	0.8600	0.0800	0.6071
Downtown						
Los Angeles	06/19/87		17	0.4000	0.0700	0.1770
Downtown						
Los Angeles	07/13/87		0	0.7000	0.0900	0.2421
Downtown						
Los Angeles	08/29/87		0	0.5400	0.0900	0.0005
Downtown						
Los Angeles	08/29/87		5	0.5700	0.1200	0.0000
Downtown						
Los Angeles	09/03/87		5	1.0100	0.1200	0.2896
Downtown						
Hawthorne	07/13/87		17	2.2800	0.0700	0.0120
Hawthorne	09/02/87		0	0.6800	0.1000	0.0169
Long Beach	08/27/87		0	0.7000	0.1000	0.1606
Long Beach	09/02/87		0	0.6700	0.0900	0.0432
Long Beach	09/02/87		17	0.3000	0.0700	0.0010
Rubidoux	07/14/87		17	0.4300	0.0600	0.1242
Rubidoux	08/28/87		0	0.4200	0.1000	0.0000
Rubidoux	08/28/87		5	0.7900	0.1200	0.1105
Rubidoux	08/28/87		17	0.3900	0.0600	0.0160
Rubidoux	08/29/87		5	0.7300	0.1300	0.0000
Rubidoux	09/03/87		17	0.4900	0.0700	0.0010
San Nicolas Island	08/29/87		13	0.6300	0.1200	0.0000
						0.2465

Table A-4 (continued)
Comparisons Between Soluble Chloride and Chlorine

II. List of Samples for Which PM_{10} Chloride (Cl^-) $\pm 2\sigma$ (analyzed by ion chromatography) > Chlorine (Cl) (analyzed by x-ray fluorescence)

Sampling	Sampling	Start					
		Site	Date	Time (PST)	Cl^-	σ_{Cl^-}	Cl
Anaheim	08/28/87		5	0.5300	0.1200	0.0442	0.2435
Anaheim	09/03/87		9	0.3600	0.1200	0.0498	0.2411
Anaheim	11/11/87		0	0.2000	0.0800	0.0444	0.0458
Azusa	08/27/87		0	0.6800	0.0900	0.0988	0.1838
Azusa	08/28/87		17	0.6300	0.0600	0.2320	0.1376
Burbank	07/13/87		9	3.7500	0.1100	0.1986	0.2342
Long Beach	08/28/87		0	0.6200	0.0900	0.2609	0.1994
Long Beach	08/28/87		17	0.4000	0.0600	0.0248	0.1408
Rubidoux	11/12/87		6	1.7000	0.1100	0.5431	0.0664
San Nicolas Island	07/13/87		0	1.7900	0.0900	0.0095	0.0095
San Nicolas Island	09/03/87		5	0.4200	0.1200	0.0010	0.0010

Table A-5
Comparisons Between Soluble Sodium and Sodium

Sampling	Sampling	Start				
<u>Site</u>	<u>Date</u>	<u>Time (PST)</u>	<u>Na⁺</u>	<u>σ_{Na^+}</u>	<u>Na</u>	<u>σ_{Na}</u>
Anaheim	06/19/87	5	4.2400	0.3200	2.7216	0.1390
Anaheim	06/19/87	9	4.4300	0.3500	2.5526	0.1515
Anaheim	06/19/87	13	4.4800	0.3300	2.2984	0.1416
Anaheim	06/19/87	17	4.1900	0.1900	2.6984	0.0806
Anaheim	06/24/87	0	4.2800	0.2600	2.0183	0.1093
Azusa	06/24/87	0	2.3800	0.2500	1.5234	0.1077
Azusa	06/25/87	13	3.8400	0.3100	1.6906	0.1355
Burbank	06/19/87	17	5.4900	0.1700	2.1727	0.0726
Burbank	12/03/87	14	1.1200	0.3100	0.5002	0.0390
Burbank	12/10/87	14	0.5700	0.3100	0.1489	0.0371
Claremont	06/25/87	17	2.7400	0.1800	1.0548	0.0805
Downtown Los Angeles	08/29/87	5	3.4400	0.3200	1.9575	0.1397
Downtown Los Angeles	11/12/87	14	1.6100	0.3000	0.5960	0.0382
Downtown Los Angeles	12/03/87	14	2.2500	0.3000	0.8711	0.0390
Hawthorne	06/19/87	0	5.4700	0.2500	3.9616	0.1080
Hawthorne	06/19/87	5	5.1100	0.3000	3.5345	0.1294
Hawthorne	06/19/87	9	5.0300	0.3200	3.2158	0.1392
Hawthorne	06/19/87	13	4.1000	0.3400	2.8220	0.1465
Hawthorne	06/19/87	17	4.1600	0.1800	0.0651	0.0732
Hawthorne	08/29/87	17	1.5800	0.1900	0.4524	0.0757
Rubidoux	06/19/87	0	3.4900	0.2600	2.0444	0.1075
Rubidoux	06/19/87	9	2.1400	0.3500	1.1849	0.1452
Rubidoux	06/19/87	13	2.6700	0.3300	1.4818	0.1398
Rubidoux	06/19/87	17	2.9700	0.1800	1.8331	0.0743
Rubidoux	07/13/87	13	1.4400	0.3200	0.7247	0.1350
San Nicolas Island	06/19/87	17	3.2600	0.1900	2.3086	0.0775

* List of samples for which PM₁₀ Soluble Sodium (Na⁺) $\pm 2\sigma$ (analyzed by atomic absorption spectroscopy) > Sodium (Na) (analyzed by x-ray fluorescence).

APPENDIX B

SUMMARY OF SCAQS PM_{2.5} AND PM₁₀ SOURCE CONTRIBUTION ESTIMATES

Table B-1
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Primary Molar Vol. Exhaled SCE ± σ (μg/m ³)	Vegetative Burning SCE ± σ (μg/m ³)	Secondary Sulfate SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary Construction Limestone SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Measured Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)	
Site ^c	Date/TIME ^a										
ANAH	06/19/87	.03	1.12 ± 0.76	0.00 ± 0.00	4.45 ± 0.20	1.44 ± 0.55	0.00 ± 0.00	0.00 ± 0.00	2.29 ± 0.35	9.34 ± 1.10	18.46 ± 3.53
ANAH	06/19/87	.05	3.00 ± 1.52	0.00 ± 0.00	6.57 ± 0.36	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.80 ± 0.56	12.53 ± 1.74	29.20 ± 4.05
ANAH	06/19/87	.09	0.90 ± 0.20	4.00 ± 1.77	4.41 ± 0.26	0.00 ± 0.00	0.00 ± 0.00	2.30 ± 0.59	10.43 ± 1.94	16.67 ± 4.42	
ANAH	06/19/87	.13	6.22 ± 0.47	4.06 ± 1.71	3.52 ± 0.20	0.00 ± 0.00	0.00 ± 0.00	2.35 ± 0.57	10.14 ± 1.92	20.54 ± 4.20	
ANAH	06/19/87	.17	3.46 ± 1.24	0.00 ± 0.00	4.38 ± 0.18	0.50 ± 0.55	0.00 ± 0.00	1.66 ± 0.26	10.09 ± 1.47	18.16 ± 2.39	
ANAH	06/24/87	.00	0.18 ± 0.46	5.88 ± 1.91	0.00 ± 0.00	12.42 ± 1.10	5.24 ± 1.10	0.00 ± 0.00	1.89 ± 0.53	25.64 ± 2.54	37.90 ± 3.23
ANAH	06/24/87	.05	2.39 ± 0.74	9.92 ± 2.90	0.00 ± 0.00	14.26 ± 1.62	4.97 ± 1.51	0.00 ± 0.00	1.99 ± 0.66	33.53 ± 3.64	48.65 ± 4.15
ANAH	06/24/87	.09	0.00 ± 0.00	7.12 ± 2.26	0.00 ± 0.00	9.84 ± 0.75	0.00 ± 0.00	0.00 ± 0.00	2.19 ± 0.60	19.15 ± 2.50	27.34 ± 4.10
ANAH	06/24/87	.13	0.90 ± 0.80	7.43 ± 2.34	0.00 ± 0.00	7.65 ± 0.55	0.00 ± 0.00	0.00 ± 0.00	0.70 ± 0.39	15.79 ± 2.46	22.96 ± 4.13
ANAH	06/24/87	.17	3.11 ± 0.45	5.70 ± 1.62	0.00 ± 0.00	8.64 ± 0.51	0.00 ± 0.00	0.00 ± 0.00	2.21 ± 0.41	19.66 ± 1.87	26.15 ± 2.32
ANAH	06/25/87	.00	0.00 ± 0.00	5.69 ± 1.81	0.00 ± 0.00	10.13 ± 0.78	2.84 ± 1.00	0.00 ± 0.00	2.13 ± 0.55	20.79 ± 2.33	30.39 ± 3.34
ANAH	06/25/87	.09	0.00 ± 0.00	8.10 ± 2.34	0.00 ± 0.00	8.52 ± 0.67	0.00 ± 0.00	0.00 ± 0.00	1.66 ± 0.63	18.27 ± 2.74	23.81 ± 4.38
ANAH	06/25/87	.13	0.00 ± 0.00	5.04 ± 1.87	0.00 ± 0.00	5.15 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	1.03 ± 0.54	11.21 ± 2.02	15.38 ± 4.06
ANAH	06/25/87	.17	0.00 ± 0.00	4.28 ± 1.34	0.00 ± 0.00	5.20 ± 0.24	1.33 ± 0.83	0.00 ± 0.00	0.51 ± 0.29	11.32 ± 1.59	17.50 ± 2.30
ANAH	07/13/87	.00	0.00 ± 0.00	4.33 ± 1.25	0.00 ± 0.00	2.61 ± 0.12	0.72 ± 0.50	0.00 ± 0.00	0.00 ± 0.00	7.65 ± 1.42	11.57 ± 2.69
ANAH	07/13/87	.05	0.00 ± 0.00	11.91 ± 3.30	0.00 ± 0.00	4.55 ± 0.46	1.69 ± 1.33	0.00 ± 0.00	0.00 ± 0.00	18.15 ± 3.62	24.69 ± 4.09
ANAH	07/13/87	.09	0.00 ± 0.00	8.94 ± 2.64	0.00 ± 0.00	5.65 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	14.59 ± 2.72	23.83 ± 4.24
ANAH	07/13/87	.13	0.00 ± 0.00	12.61 ± 3.30	0.00 ± 0.00	7.91 ± 0.76	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	20.52 ± 3.49	32.43 ± 4.14
ANAH	07/13/87	.17	0.00 ± 0.00	6.31 ± 1.75	0.00 ± 0.00	4.59 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	0.26 ± 0.29	11.18 ± 1.84	16.30 ± 2.33
ANAH	07/14/87	.00	0.00 ± 0.00	6.63 ± 1.97	0.00 ± 0.00	7.24 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	0.39 ± 0.45	14.26 ± 2.13	15.81 ± 3.27
ANAH	07/14/87	.05	0.00 ± 0.00	5.13 ± 2.01	0.00 ± 0.00	13.74 ± 1.16	0.00 ± 0.00	0.00 ± 0.00	0.80 ± 0.55	19.69 ± 2.35	31.69 ± 4.14
ANAH	07/14/87	.09	0.00 ± 0.00	9.03 ± 2.69	0.00 ± 0.00	12.46 ± 1.14	0.00 ± 0.00	0.00 ± 0.00	0.04 ± 0.59	21.52 ± 2.95	29.76 ± 4.23
ANAH	07/15/87	.05	0.00 ± 0.00	8.13 ± 2.53	0.00 ± 0.00	14.88 ± 1.46	1.15 ± 1.10	0.00 ± 0.00	0.26 ± 0.58	23.63 ± 2.89	35.51 ± 4.22
ANAH	07/15/87	.09	0.10 ± 0.26	3.94 ± 1.60	0.00 ± 0.00	4.34 ± 0.24	0.00 ± 0.00	0.00 ± 0.00	0.36 ± 0.32	13.28 ± 1.54	20.19 ± 2.29
ANAH	07/15/87	.13	0.00 ± 0.00	3.19 ± 1.20	0.00 ± 0.00	3.25 ± 0.17	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.12	12.22 ± 1.73	17.25 ± 3.26
ANAH	07/15/87	.17	0.01 ± 0.26	4.34 ± 1.31	0.00 ± 0.00	3.27 ± 0.13	0.00 ± 0.00	0.00 ± 0.00	0.05 ± 0.31	7.67 ± 1.42	9.29 ± 2.29
ANAH	07/15/87	.00	0.00 ± 0.00	8.68 ± 2.39	0.00 ± 0.00	7.35 ± 0.38	5.91 ± 1.18	0.00 ± 0.00	0.15 ± 0.45	22.09 ± 2.81	29.16 ± 3.12

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/Time ^b	Primary		Secondary		Secondary (Uncertainties)		Oil		Marine		Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
		Primary Geological	Exhaust	Berning SCE ± σ (μg/m ³)	Sulfate SCE ± σ (μg/m ³)	Nitrate SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	Aerosol SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	Aerosol SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)		
ANAH	06/27/87 05	0.50 ± 0.50	15.39 ± 4.58	0.00 ± 0.00	7.54 ± 0.90	11.11 ± 1.92	0.00 ± 0.00	0.00 ± 0.00	0.43 ± 0.61	34.96 ± 4.65	50.65 ± 4.17	15.69 ± 6.25	
ANAH	06/27/87 06	0.50 ± 0.50	15.51 ± 3.84	0.00 ± 0.00	9.33 ± 1.07	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.87 ± 0.63	25.91 ± 4.03	50.18 ± 4.35	24.27 ± 5.95	
ANAH	06/27/87 13	0.72 ± 0.49	9.22 ± 2.67	0.50 ± 0.20	6.51 ± 0.69	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.62 ± 0.57	19.07 ± 2.93	35.14 ± 4.08	16.07 ± 5.02	
ANAH	06/27/87 17	0.50 ± 0.50	7.10 ± 1.92	0.00 ± 0.00	7.50 ± 0.50	1.61 ± 0.94	0.00 ± 0.00	0.00 ± 0.00	0.75 ± 0.36	16.96 ± 2.28	26.07 ± 2.38	9.11 ± 3.30	
ANAH	06/28/87 00	0.50 ± 0.50	5.65 ± 1.85	0.00 ± 0.00	6.61 ± 0.62	3.38 ± 0.96	0.00 ± 0.00	0.00 ± 0.00	0.25 ± 0.47	18.12 ± 2.26	27.93 ± 3.29	9.81 ± 4.00	
ANAH	06/28/87 05	0.50 ± 0.50	9.50 ± 2.66	0.00 ± 0.00	12.30 ± 1.30	4.99 ± 1.45	0.00 ± 0.00	0.00 ± 0.00	0.15 ± 0.61	27.24 ± 3.46	41.40 ± 4.22	14.16 ± 5.46	
ANAH	06/28/87 13	0.50 ± 0.50	12.40 ± 3.37	0.00 ± 0.00	17.97 ± 2.22	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 0.60	31.17 ± 3.73	49.59 ± 4.24	18.42 ± 5.65	
ANAH	06/28/87 17	0.50 ± 0.50	7.30 ± 2.91	0.00 ± 0.00	10.03 ± 0.79	3.75 ± 1.04	0.00 ± 0.00	0.00 ± 0.00	0.76 ± 0.35	21.84 ± 2.46	35.08 ± 2.34	13.24 ± 3.40	
ANAH	06/28/87 00	0.50 ± 0.50	10.44 ± 2.77	0.00 ± 0.00	14.72 ± 2.36	8.70 ± 1.82	0.00 ± 0.00	0.00 ± 0.00	0.41 ± 0.46	34.30 ± 3.68	51.13 ± 3.08	16.83 ± 4.80	
ANAH	06/28/87 05	0.50 ± 0.50	11.50 ± 3.23	0.00 ± 0.00	17.97 ± 2.42	5.78 ± 1.72	0.00 ± 0.00	0.00 ± 0.00	0.23 ± 0.66	35.47 ± 4.03	50.04 ± 4.41	14.57 ± 5.97	
ANAH	06/28/87 06	0.50 ± 0.50	8.10 ± 2.45	0.00 ± 0.00	15.06 ± 2.46	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.21 ± 0.37	23.37 ± 2.96	40.75 ± 4.23	17.38 ± 5.16	
ANAH	06/29/87 13	0.50 ± 0.50	5.64 ± 1.94	0.00 ± 0.00	11.36 ± 0.86	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.34	17.11 ± 2.23	29.43 ± 4.13	12.32 ± 4.69	
ANAH	06/29/87 17	0.50 ± 0.50	7.41 ± 1.99	0.00 ± 0.00	8.74 ± 0.87	0.66 ± 1.15	0.00 ± 0.00	0.00 ± 0.00	0.52 ± 0.35	17.34 ± 2.50	27.23 ± 2.33	9.89 ± 3.42	
ANAH	06/29/87 00	0.06 ± 0.72	11.58 ± 3.02	0.00 ± 0.00	5.35 ± 0.53	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.07 ± 0.53	19.06 ± 3.24	21.51 ± 3.23	2.45 ± 4.57	
ANAH	06/29/87 05	0.97 ± 1.28	22.22 ± 5.46	0.00 ± 0.00	5.37 ± 1.02	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.56 ± 0.71	31.07 ± 5.76	42.04 ± 4.31	10.91 ± 7.19	
ANAH	06/29/87 09	0.97 ± 1.10	18.72 ± 4.75	0.00 ± 0.00	8.32 ± 1.27	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.82 ± 0.65	29.93 ± 5.05	48.36 ± 4.14	18.43 ± 6.53	
ANAH	06/29/87 13	1.31 ± 0.83	12.61 ± 3.45	0.00 ± 0.00	8.50 ± 1.04	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.31 ± 0.61	23.73 ± 3.74	36.80 ± 4.15	13.07 ± 5.59	
ANAH	06/29/87 17	0.50 ± 0.50	5.47 ± 1.54	0.00 ± 0.00	6.26 ± 0.32	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.15 ± 0.40	13.87 ± 1.68	18.40 ± 2.35	4.53 ± 2.89	
ANAH	06/29/87 00	0.50 ± 0.50	3.94 ± 1.41	0.00 ± 0.00	6.82 ± 0.39	1.84 ± 0.78	0.00 ± 0.00	0.00 ± 0.00	1.95 ± 0.66	14.57 ± 1.80	23.74 ± 3.06	9.17 ± 3.55	
ANAH	06/29/87 05	0.50 ± 0.50	9.35 ± 2.85	0.00 ± 0.00	8.97 ± 0.86	5.43 ± 1.39	0.00 ± 0.00	0.00 ± 0.00	1.82 ± 0.71	25.37 ± 3.38	45.68 ± 4.74	20.11 ± 5.82	
ANAH	06/29/87 09	0.50 ± 0.50	8.89 ± 2.61	0.00 ± 0.00	10.49 ± 0.89	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.57 ± 0.60	20.95 ± 2.84	31.30 ± 4.22	10.35 ± 5.09	
ANAH	06/29/87 13	0.52 ± 0.56	5.04 ± 1.87	0.00 ± 0.00	6.92 ± 0.43	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.40 ± 0.36	13.38 ± 2.13	16.15 ± 4.20	2.77 ± 4.71	
ANAH	06/29/87 17	0.50 ± 0.50	2.27 ± 0.77	0.00 ± 0.00	5.24 ± 0.19	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.26 ± 0.31	8.77 ± 0.94	11.62 ± 2.33	2.85 ± 2.51	
ANAH	06/29/87 00	0.50 ± 0.50	6.57 ± 1.84	0.00 ± 0.00	4.41 ± 0.98	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.12	7.04 ± 1.87	5.40 ± 2.86	-1.64 ± 3.42	
ANAH	06/29/87 18	0.50 ± 0.50	36.26 ± 7.41	0.00 ± 0.00	0.66 ± 1.46	14.45 ± 3.60	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.22	52.19 ± 8.33	58.74 ± 2.87	6.55 ± 8.81	
ANAH	06/11/87 00	0.31 ± 0.72	5.14 ± 4.18	0.00 ± 0.00	0.34 ± 0.25	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.16 ± 0.17	5.95 ± 4.27	9.45 ± 4.10	3.50 ± 5.92	
ANAH	06/11/87 10	0.50 ± 0.50	5.00 ± 1.83	0.00 ± 0.00	0.25 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.99 ± 0.11	6.24 ± 1.87	1.71 ± 4.35	-2.53 ± 4.73	
ANAH	06/11/87 14	0.50 ± 0.50	17.09 ± 7.80	0.00 ± 0.00	1.30 ± 0.74	3.69 ± 1.89	0.00 ± 0.00	0.00 ± 0.00	0.43 ± 0.30	22.52 ± 0.97	24.53 ± 4.27	3.01 ± 9.13	
ANAH	06/11/87 18	0.50 ± 0.50	36.26 ± 7.41	0.00 ± 0.00	0.66 ± 1.46	14.45 ± 3.60	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.22	52.19 ± 8.33	58.74 ± 2.87	6.55 ± 8.81	
ANAH	06/11/87 00	0.50 ± 0.50	32.92 ± 5.89	0.00 ± 0.00	19.84 ± 3.44	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.68 ± 0.16	33.44 ± 6.82	48.96 ± 2.82	-4.48 ± 7.38	
ANAH	06/11/87 06	0.50 ± 0.50	31.00 ± 5.89	0.00 ± 0.00	16.78 ± 3.22	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.49 ± 0.21	48.28 ± 6.72	44.20 ± 4.26	-4.06 ± 7.96	

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source ± σ (μg/m ³)	Site Date/Time ^a	Primary Molar Vol.	Vegetative Burning	Secondary Sulfate	Secondary SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Oil (Linseedole) (μg/m ³)	Combustion SCE ± σ (μg/m ³)	Marine (μg/m ³)	Aerosol Calculated (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
ANAH	11/12/87	10	0.80 ± 0.08	15.62 ± 4.08	0.00 ± 0.00	2.13 ± 0.44	10.10 ± 1.75	0.00 ± 0.00	0.00 ± 0.00	0.38 ± 0.19	24.72 ± 4.49	36.66 ± 4.25
ANAH	11/12/87	14	0.80 ± 0.08	13.62 ± 3.71	0.00 ± 0.00	2.14 ± 0.37	10.14 ± 1.60	0.00 ± 0.00	0.00 ± 0.00	1.16 ± 0.24	27.06 ± 4.09	39.26 ± 4.37
ANAH	11/12/87	18	0.80 ± 0.08	21.72 ± 4.78	0.00 ± 0.00	2.83 ± 0.65	24.86 ± 2.75	0.00 ± 0.00	0.00 ± 0.00	0.93 ± 0.18	30.35 ± 5.57	60.78 ± 2.82
ANAH	11/13/87	00	0.80 ± 0.08	14.56 ± 3.49	0.00 ± 0.00	5.71 ± 0.82	36.04 ± 3.09	0.00 ± 0.00	0.00 ± 0.00	0.56 ± 0.14	58.87 ± 4.73	64.09 ± 2.83
ANAH	11/13/87	04	0.80 ± 0.08	12.93 ± 3.51	0.00 ± 0.00	5.29 ± 0.58	30.69 ± 2.60	0.00 ± 0.00	0.00 ± 0.00	0.69 ± 0.18	49.60 ± 4.44	62.36 ± 4.20
ANAH	11/13/87	10	1.65 ± 0.98	12.14 ± 3.46	0.00 ± 0.00	6.47 ± 0.64	7.50 ± 1.49	0.00 ± 0.00	0.00 ± 0.00	1.50 ± 0.25	31.26 ± 3.99	57.42 ± 4.35
ANAH	11/13/87	14	0.80 ± 0.08	10.91 ± 2.80	0.00 ± 0.00	3.62 ± 0.33	9.00 ± 0.90	0.00 ± 0.00	0.00 ± 0.00	1.91 ± 0.28	15.55 ± 2.87	20.28 ± 4.34
ANAH	11/13/87	18	0.80 ± 0.08	9.03 ± 2.39	0.00 ± 0.00	4.54 ± 0.32	4.08 ± 1.03	0.00 ± 0.00	0.00 ± 0.00	1.30 ± 0.19	18.95 ± 2.68	18.74 ± 2.83
ANAH	12/03/87	00	0.80 ± 0.08	46.29 ± 9.22	0.00 ± 0.00	9.41 ± 3.25	116.41 ± 9.38	0.00 ± 0.00	0.00 ± 0.00	1.00 ± 0.25	173.11 ± 13.27	201.38 ± 2.85
ANAH	12/03/87	04	4.60 ± 3.90	71.58 ± 15.14	0.00 ± 0.00	5.16 ± 6.31	105.72 ± 10.26	0.00 ± 0.00	0.00 ± 0.00	1.14 ± 0.33	190.21 ± 18.87	207.32 ± 4.43
ANAH	12/03/87	10	8.26 ± 1.83	32.91 ± 7.57	0.00 ± 0.00	7.58 ± 1.94	85.30 ± 6.86	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	134.04 ± 10.47	182.24 ± 4.38
ANAH	12/03/87	14	2.33 ± 1.76	30.44 ± 6.99	0.00 ± 0.00	11.41 ± 2.43	62.79 ± 5.43	0.00 ± 0.00	0.00 ± 0.00	1.14 ± 0.26	108.11 ± 9.16	155.81 ± 4.30
ANAH	12/03/87	18	0.80 ± 0.08	14.25 ± 7.05	0.00 ± 0.00	9.19 ± 2.15	63.90 ± 5.64	0.00 ± 0.00	0.00 ± 0.00	0.16 ± 0.18	107.49 ± 9.15	132.13 ± 2.69
ANAH	12/10/87	00	0.80 ± 0.08	47.32 ± 9.39	0.00 ± 0.00	0.34 ± 2.43	33.47 ± 5.08	0.00 ± 0.00	0.00 ± 0.00	0.36 ± 0.19	81.46 ± 10.79	88.61 ± 2.75
ANAH	12/10/87	04	0.80 ± 0.08	49.16 ± 8.81	0.00 ± 0.00	0.00 ± 0.00	24.67 ± 5.00	0.00 ± 0.00	0.00 ± 0.00	0.49 ± 0.27	74.32 ± 10.14	68.90 ± 4.37
ANAH	12/10/87	10	0.80 ± 0.08	17.01 ± 4.32	0.00 ± 0.00	1.09 ± 0.47	32.61 ± 2.88	0.00 ± 0.00	0.00 ± 0.00	0.10 ± 0.13	50.80 ± 5.24	63.31 ± 4.32
ANAH	12/10/87	14	0.80 ± 0.08	35.56 ± 7.74	0.00 ± 0.00	2.70 ± 1.60	51.23 ± 4.99	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 0.23	90.08 ± 9.30	113.19 ± 4.28
ANAH	12/10/87	18	0.80 ± 0.08	63.43 ± 12.44	0.00 ± 0.00	0.97 ± 4.31	46.85 ± 6.93	0.00 ± 0.00	0.00 ± 0.00	0.81 ± 0.25	113.97 ± 14.40	137.23 ± 2.88
ANAH	12/11/87	00	0.80 ± 0.08	42.93 ± 8.61	0.00 ± 0.00	0.02 ± 2.01	27.87 ± 4.33	0.00 ± 0.00	0.00 ± 0.00	0.65 ± 0.18	71.47 ± 9.83	74.15 ± 2.83
ANAH	12/11/87	04	0.80 ± 0.08	71.30 ± 12.35	0.00 ± 0.00	0.00 ± 0.00	32.74 ± 7.14	0.00 ± 0.00	0.00 ± 0.00	0.51 ± 0.34	104.55 ± 14.27	110.28 ± 4.31
ANAH	12/11/87	10	0.80 ± 0.08	36.34 ± 7.99	0.00 ± 0.00	5.34 ± 1.89	74.18 ± 6.33	0.00 ± 0.00	0.00 ± 0.00	0.25 ± 0.18	116.11 ± 10.28	139.47 ± 4.35
ANAH	12/11/87	14	0.80 ± 0.08	26.36 ± 6.14	0.00 ± 0.00	6.40 ± 1.30	39.67 ± 3.45	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.14	72.54 ± 7.34	92.60 ± 4.37
ANAH	12/11/87	18	0.80 ± 0.08	58.63 ± 11.57	0.00 ± 0.00	3.39 ± 3.80	32.01 ± 6.01	0.00 ± 0.00	0.00 ± 0.00	0.16 ± 0.22	94.20 ± 13.18	121.58 ± 3.19
AZUS	06/19/87	00	11.02 ± 1.28	20.38 ± 4.73	0.00 ± 0.00	3.02 ± 0.62	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.03 ± 0.53	36.45 ± 4.99	55.71 ± 3.00
AZUS	06/19/87	04	5.05 ± 1.64	16.35 ± 4.31	0.00 ± 0.00	5.91 ± 0.73	3.42 ± 1.79	0.00 ± 0.00	0.00 ± 0.00	1.87 ± 0.64	32.80 ± 4.90	39.66 ± 4.03
AZUS	06/19/87	09	6.10 ± 1.12	18.32 ± 4.50	0.00 ± 0.00	6.74 ± 0.87	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.88 ± 0.62	49.95 ± 3.73	55.91 ± 6.06
AZUS	06/19/87	13	4.48 ± 1.02	16.00 ± 4.05	0.00 ± 0.00	7.39 ± 0.85	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.96 ± 0.66	30.03 ± 4.33	53.23 ± 4.19
AZUS	06/19/87	17	0.70 ± 0.77	13.74 ± 3.32	0.00 ± 0.00	5.37 ± 0.50	2.32 ± 1.45	0.00 ± 0.00	0.00 ± 0.00	1.71 ± 0.39	23.84 ± 3.79	33.69 ± 2.13
AZUS	06/24/87	00	0.00 ± 0.00	9.01 ± 2.44	0.00 ± 0.00	8.59 ± 0.75	9.43 ± 1.35	0.00 ± 0.00	0.00 ± 0.00	0.56 ± 0.46	27.60 ± 2.96	36.61 ± 3.06
AZUS	06/24/87	03	4.28 ± 0.92	12.92 ± 6.70	0.00 ± 0.00	15.75 ± 2.79	10.70 ± 2.04	0.00 ± 0.00	0.00 ± 0.00	1.64 ± 0.64	45.29 ± 7.26	67.76 ± 3.98

Table B-1 (continued)
Individual Source Contributions to $\text{PM}_{2.5}$ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological	Primary Veh. Emissions	Vegetative Burning	Secondary Sulfate	Secondary Construction (Limestone)	On Combustion	Marine	Measured						
							SCE ± • ($\mu\text{g/m}^3$)	SCE ± • ($\mu\text{g/m}^3$)	SCE ± • ($\mu\text{g/m}^3$)				
AZUS	06/24/87	09	1.84 ± 0.04	12.41 ± 7.18	0.00 ± 0.00	25.12 ± 4.26	1.61 ± 2.00	0.00 ± 0.00	0.00 ± 0.00	1.97 ± 0.64	42.90 ± 7.81	79.78 ± 3.96	36.68 ± 8.76
AZUS	06/24/87	13	2.99 ± 0.03	11.59 ± 5.76	0.00 ± 0.00	21.39 ± 4.42	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.40 ± 0.62	43.36 ± 6.23	87.11 ± 4.13	43.75 ± 7.47
AZUS	06/24/87	17	0.38 ± 0.04	11.37 ± 2.79	0.00 ± 0.00	13.77 ± 1.54	7.06 ± 1.54	0.00 ± 0.00	0.00 ± 0.00	1.03 ± 0.36	33.83 ± 1.50	47.69 ± 2.21	13.86 ± 4.14
AZUS	06/25/87	09	0.65 ± 0.73	12.86 ± 3.26	0.00 ± 0.00	15.59 ± 2.16	16.71 ± 2.09	0.00 ± 0.00	0.00 ± 0.00	0.51 ± 0.48	46.51 ± 4.24	59.63 ± 3.15	13.12 ± 5.28
AZUS	06/25/87	05	4.76 ± 1.09	18.91 ± 4.47	0.00 ± 0.00	19.09 ± 3.38	20.92 ± 2.73	0.00 ± 0.00	0.00 ± 0.00	1.06 ± 0.60	63.63 ± 5.69	81.41 ± 3.86	17.58 ± 6.88
AZUS	06/25/87	09	3.99 ± 1.45	25.67 ± 6.29	0.00 ± 0.00	19.97 ± 3.73	2.60 ± 2.93	0.00 ± 0.00	0.00 ± 0.00	0.83 ± 0.62	32.16 ± 7.37	81.92 ± 3.99	29.76 ± 8.38
AZUS	06/25/87	13	2.00 ± 1.05	17.77 ± 4.38	0.00 ± 0.00	14.96 ± 1.99	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.76 ± 0.59	35.49 ± 4.76	61.92 ± 3.91	26.43 ± 6.16
AZUS	06/25/87	17	0.31 ± 0.74	12.97 ± 3.27	0.00 ± 0.00	12.64 ± 1.47	10.20 ± 1.74	0.00 ± 0.00	0.00 ± 0.00	0.52 ± 0.35	36.64 ± 3.98	54.03 ± 2.25	17.39 ± 4.57
AZUS	07/13/87	09	1.01 ± 0.71	11.44 ± 3.63	0.00 ± 0.00	3.73 ± 0.34	1.11 ± 1.22	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.29 ± 3.39	22.14 ± 3.10	4.85 ± 4.59
AZUS	07/13/87	05	5.65 ± 1.28	21.86 ± 5.35	0.00 ± 0.00	3.59 ± 0.79	3.27 ± 2.20	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	34.37 ± 5.99	48.14 ± 4.00	13.77 ± 7.20
AZUS	07/13/87	09	3.69 ± 1.25	21.72 ± 5.27	0.00 ± 0.00	5.45 ± 0.93	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	30.26 ± 5.50	46.79 ± 4.04	16.53 ± 6.82
AZUS	07/13/87	13	3.12 ± 1.30	22.32 ± 5.34	0.00 ± 0.00	6.47 ± 1.06	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	31.91 ± 5.59	44.07 ± 4.42	12.16 ± 7.13
AZUS	07/13/87	17	0.00 ± 0.00	6.66 ± 1.79	0.00 ± 0.00	3.59 ± 0.19	0.29 ± 0.76	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.34 ± 1.99	17.08 ± 2.21	6.54 ± 2.97
AZUS	07/14/87	09	2.09 ± 0.65	9.11 ± 2.62	0.00 ± 0.00	3.24 ± 0.27	1.08 ± 1.08	0.00 ± 0.00	0.00 ± 0.00	0.24 ± 0.46	16.36 ± 2.99	19.36 ± 3.16	3.00 ± 4.35
AZUS	07/14/87	05	2.90 ± 1.20	20.44 ± 5.19	0.00 ± 0.00	9.99 ± 1.45	5.23 ± 2.25	0.00 ± 0.00	0.00 ± 0.00	0.57 ± 0.63	39.14 ± 5.94	45.80 ± 4.14	6.66 ± 7.24
AZUS	07/14/87	09	2.96 ± 1.05	17.53 ± 4.31	0.00 ± 0.00	12.01 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.08 ± 0.60	31.68 ± 4.64	48.43 ± 4.08	16.75 ± 6.18
AZUS	07/14/87	13	0.00 ± 0.00	19.21 ± 4.46	0.00 ± 0.00	6.64 ± 0.89	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	25.86 ± 4.56	26.24 ± 4.20	0.38 ± 6.20
AZUS	07/14/87	17	0.16 ± 0.60	10.25 ± 2.61	0.00 ± 0.00	6.90 ± 0.54	3.52 ± 1.20	0.00 ± 0.00	0.00 ± 0.00	0.21 ± 0.34	21.05 ± 3.05	29.70 ± 2.25	8.65 ± 3.79
AZUS	07/15/87	09	1.92 ± 0.70	10.92 ± 2.89	0.00 ± 0.00	11.65 ± 1.25	7.83 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	32.42 ± 3.51	50.72 ± 3.20	18.30 ± 4.75
AZUS	07/15/87	05	3.03 ± 1.10	18.29 ± 4.35	0.00 ± 0.00	13.22 ± 1.90	9.11 ± 2.20	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	43.66 ± 5.35	56.62 ± 4.10	12.96 ± 6.74
AZUS	07/15/87	09	1.33 ± 1.12	19.19 ± 4.93	0.00 ± 0.00	14.93 ± 2.27	3.15 ± 2.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	38.62 ± 5.73	57.09 ± 4.07	18.47 ± 7.03
AZUS	07/15/87	13	1.72 ± 1.13	19.06 ± 4.65	0.00 ± 0.00	9.52 ± 1.25	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	30.31 ± 4.92	48.80 ± 4.36	18.49 ± 6.57
AZUS	07/15/87	17	0.22 ± 0.67	11.71 ± 2.90	0.00 ± 0.00	10.45 ± 1.02	4.33 ± 1.42	0.00 ± 0.00	0.00 ± 0.00	0.25 ± 0.65	26.72 ± 3.45	39.15 ± 2.19	12.43 ± 4.09
AZUS	08/27/87	09	1.76 ± 0.80	13.13 ± 3.43	0.00 ± 0.00	7.99 ± 0.79	5.62 ± 1.54	0.00 ± 0.00	0.00 ± 0.00	0.44 ± 0.48	28.94 ± 3.98	52.17 ± 3.69	23.23 ± 5.04
AZUS	08/27/87	05	5.09 ± 1.09	17.31 ± 4.52	0.00 ± 0.00	8.31 ± 1.05	8.61 ± 2.00	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.61	41.14 ± 5.20	61.27 ± 3.94	20.13 ± 6.32
AZUS	08/27/87	09	1.82 ± 1.62	21.92 ± 6.82	0.00 ± 0.00	7.87 ± 1.57	0.69 ± 2.83	0.00 ± 0.00	0.00 ± 0.00	0.25 ± 0.65	43.95 ± 7.69	65.21 ± 4.11	21.32 ± 8.72
AZUS	08/27/87	13	7.46 ± 1.36	21.48 ± 5.60	0.00 ± 0.00	7.74 ± 1.26	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	38.68 ± 5.88	59.97 ± 3.93	21.29 ± 7.07
AZUS	08/27/87	17	1.46 ± 0.74	12.98 ± 3.10	0.00 ± 0.00	8.58 ± 0.77	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.12 ± 0.37	24.16 ± 3.32	35.48 ± 2.27	11.32 ± 4.02
AZUS	08/27/87	09	1.97 ± 1.17	20.81 ± 4.98	0.00 ± 0.00	2.43 ± 2.16	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.16 ± 0.49	31.69 ± 5.67	37.26 ± 1.09	3.57 ± 6.46
AZUS	08/27/87	05	8.16 ± 1.73	30.34 ± 7.14	0.00 ± 0.00	7.64 ± 1.69	9.61 ± 3.11	0.00 ± 0.00	0.00 ± 0.00	1.50 ± 0.65	57.26 ± 6.11	74.35 ± 3.92	17.09 ± 9.01

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± • ($\mu\text{g/m}^3$)	Primary Motor Veh. Exhaust SCE ± • ($\mu\text{g/m}^3$)	Primary Vegetative Burning SCE ± • ($\mu\text{g/m}^3$)	Secondary Sulfate SCE ± • ($\mu\text{g/m}^3$)	Secondary SCE ± • ($\mu\text{g/m}^3$)	Secondary (limestone) SCE ± • ($\mu\text{g/m}^3$)	Oil Combustion SCE ± • ($\mu\text{g/m}^3$)	Aerosol SCE ± • ($\mu\text{g/m}^3$)	Marine Calculated Mass ± • ($\mu\text{g/m}^3$)	Measured Mass ± • ($\mu\text{g/m}^3$)	Unexplained Mass ± • ($\mu\text{g/m}^3$)	
AZ1US	06/24/87	69	4.99 ± 1.85	12.99 ± 7.73	0.00 ± 0.00	9.74 ± 2.20	8.80 ± 3.38	0.00 ± 0.00	0.35 ± 0.64	29.81 ± 4.00	-29.06 ± 9.66
AZ1US	06/24/87	13	4.80 ± 1.49	26.25 ± 6.23	0.00 ± 0.00	14.36 ± 2.49	0.00 ± 0.00	0.00 ± 0.00	0.59 ± 0.61	46.00 ± 6.62	29.74 ± 7.68
AZ1US	06/24/87	17	7.50 ± 1.14	19.51 ± 4.61	0.00 ± 0.00	9.11 ± 1.19	9.12 ± 2.16	0.00 ± 0.00	2.56 ± 0.48	47.80 ± 5.35	54.41 ± 2.27
AZ1US	06/24/87	60	0.78 ± 0.70	12.86 ± 3.24	0.00 ± 0.00	9.88 ± 1.08	14.51 ± 1.83	0.00 ± 0.00	0.00 ± 0.00	38.05 ± 3.95	49.29 ± 3.14
AZ1US	06/24/87	65	1.30 ± 1.35	23.89 ± 5.85	0.00 ± 0.00	12.34 ± 2.10	18.29 ± 2.89	0.00 ± 0.00	0.29 ± 0.61	56.31 ± 6.85	65.91 ± 1.92
AZ1US	06/24/87	69	2.34 ± 1.27	22.02 ± 5.56	0.00 ± 0.00	24.50 ± 5.02	11.50 ± 2.46	0.00 ± 0.00	0.50 ± 0.62	60.89 ± 6.74	88.20 ± 3.94
AZ1US	06/24/87	13	1.55 ± 1.86	17.46 ± 4.52	0.00 ± 0.00	16.08 ± 7.65	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.61	55.28 ± 5.44	85.75 ± 4.03
AZ1US	06/24/87	17	0.91 ± 0.76	13.45 ± 3.33	0.00 ± 0.00	18.10 ± 2.49	7.15 ± 1.79	0.00 ± 0.00	0.00 ± 0.00	39.61 ± 4.17	56.81 ± 2.19
AZ1US	06/24/87	60	3.54 ± 0.66	9.59 ± 2.52	0.00 ± 0.00	1.96 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	15.09 ± 2.64	20.82 ± 3.01
AZ1US	06/24/87	65	11.61 ± 0.91	8.49 ± 2.51	0.00 ± 0.00	1.44 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	21.53 ± 2.71	26.95 ± 3.93
AZ1US	06/24/87	69	3.91 ± 0.63	6.11 ± 2.02	0.00 ± 0.00	1.59 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	11.61 ± 2.16	17.89 ± 4.00
AZ1US	06/24/87	13	9.79 ± 1.20	18.56 ± 4.52	0.00 ± 0.00	4.84 ± 0.70	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	33.20 ± 4.75	56.20 ± 3.67
AZ1US	06/24/87	17	2.37 ± 0.65	10.75 ± 2.54	0.00 ± 0.00	4.79 ± 0.35	0.00 ± 0.00	0.00 ± 0.00	0.98 ± 0.36	19.39 ± 2.73	30.18 ± 2.26
AZ1US	06/24/87	60	3.56 ± 0.64	8.66 ± 2.37	0.00 ± 0.00	5.32 ± 0.37	0.00 ± 0.00	0.00 ± 0.00	1.25 ± 0.49	18.79 ± 2.57	24.40 ± 3.25
AZ1US	06/24/87	65	4.76 ± 0.98	15.32 ± 3.87	0.00 ± 0.00	6.05 ± 0.68	0.00 ± 0.00	0.00 ± 0.00	1.05 ± 0.61	27.16 ± 4.12	39.52 ± 3.93
AZ1US	06/24/87	69	7.79 ± 1.11	16.59 ± 4.20	0.00 ± 0.00	7.98 ± 0.94	0.00 ± 0.00	0.00 ± 0.00	0.90 ± 0.63	33.27 ± 4.49	56.50 ± 4.06
AZ1US	06/24/87	13	9.41 ± 0.91	10.46 ± 2.94	0.00 ± 0.00	6.69 ± 0.75	0.00 ± 0.00	0.00 ± 0.00	1.39 ± 0.60	30.15 ± 3.25	37.77 ± 3.93
AZ1US	06/24/87	17	0.94 ± 0.47	7.30 ± 1.89	0.00 ± 0.00	6.97 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	1.27 ± 0.36	16.48 ± 2.08	21.28 ± 2.19
BURK	06/19/87	60	0.90 ± 0.90	9.48 ± 2.64	0.00 ± 0.00	1.94 ± 0.21	0.11 ± 1.01	0.00 ± 0.00	2.47 ± 0.31	14.00 ± 2.88	23.56 ± 3.01
BURK	06/19/87	65	0.00 ± 0.00	18.46 ± 4.59	0.00 ± 0.00	4.34 ± 0.67	5.08 ± 1.92	0.00 ± 0.00	2.18 ± 0.58	30.07 ± 5.97	43.12 ± 3.96
BURK	06/19/87	69	1.18 ± 0.93	15.25 ± 4.14	0.00 ± 0.00	10.22 ± 1.23	4.14 ± 1.79	0.00 ± 0.00	1.24 ± 0.53	32.02 ± 4.77	49.63 ± 3.90
BURK	06/19/87	13	0.00 ± 0.00	11.00 ± 3.02	0.00 ± 0.00	8.20 ± 0.72	0.00 ± 0.00	0.00 ± 0.00	1.62 ± 0.60	20.82 ± 3.20	36.06 ± 3.96
BURK	06/19/87	17	0.00 ± 0.00	9.80 ± 2.37	0.00 ± 0.00	5.56 ± 0.40	2.49 ± 1.19	0.00 ± 0.00	1.52 ± 0.32	19.36 ± 2.71	28.46 ± 2.13
BURK	06/24/87	60	0.00 ± 0.00	13.46 ± 3.32	0.00 ± 0.00	22.97 ± 3.66	7.11 ± 1.91	0.00 ± 0.00	1.21 ± 0.47	44.75 ± 4.30	43.43 ± 2.94
BURK	06/24/87	65	0.48 ± 0.92	14.95 ± 3.93	0.00 ± 0.00	23.90 ± 4.14	8.50 ± 2.16	0.00 ± 0.00	1.61 ± 0.62	49.45 ± 5.05	75.03 ± 3.92
BURK	06/24/87	69	0.00 ± 0.00	22.72 ± 5.39	0.00 ± 0.00	27.00 ± 5.21	0.00 ± 0.00	0.00 ± 0.00	1.42 ± 0.60	51.14 ± 5.89	86.60 ± 3.84
BURK	06/24/87	13	0.00 ± 0.00	19.06 ± 4.72	0.00 ± 0.00	29.84 ± 5.69	0.00 ± 0.00	0.00 ± 0.00	1.00 ± 0.60	49.90 ± 5.32	82.72 ± 4.01
BURK	06/24/87	17	0.00 ± 0.00	4.90 ± 1.45	0.00 ± 0.00	13.79 ± 1.33	9.71 ± 1.17	0.00 ± 0.00	1.10 ± 0.35	29.31 ± 2.21	46.44 ± 2.17
BURK	06/24/87	60	0.00 ± 0.00	9.73 ± 2.62	0.00 ± 0.00	17.65 ± 2.48	17.30 ± 1.96	0.00 ± 0.00	0.01 ± 0.45	63.87 ± 3.05	19.17 ± 4.16
BURK	06/24/87	65	0.00 ± 0.00	16.70 ± 4.10	0.00 ± 0.00	21.22 ± 3.69	20.92 ± 2.69	0.00 ± 0.00	0.60 ± 0.57	59.43 ± 5.12	20.29 ± 6.63

Table B-1 (continued)
Individual Source Contributions to $PM_{2.5}$ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source ^a	Primary Meteo Vch. Exhaust	Secondary Vegetative Burning	Secondary Sulfate	Secondary Construction		Oil Combustion	Aerosol	Marine	Measured	Calculated	Uncalibrated Mass ± σ (μg/m ³)
				SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)						
BURK	06/25/87	09	0.00 ± 0.00	26.65 ± 5.06	0.00 ± 0.00	21.81 ± 4.02	4.05 ± 2.55	0.00 ± 0.00	1.13 ± 0.60	47.63 ± 6.05	84.04 ± 3.93
BURK	06/25/87	13	0.00 ± 0.00	14.03 ± 3.57	0.00 ± 0.00	22.66 ± 3.29	0.00 ± 0.00	0.00 ± 0.00	0.78 ± 0.51	37.41 ± 4.04	23.24 ± 5.57
BURK	06/25/87	17	0.00 ± 0.00	9.67 ± 2.34	0.00 ± 0.00	9.24 ± 0.82	9.07 ± 1.36	0.00 ± 0.00	0.25 ± 0.33	26.24 ± 2.88	42.12 ± 2.20
BURK	07/13/87	09	0.00 ± 0.00	12.69 ± 3.16	0.00 ± 0.00	2.54 ± 0.31	0.06 ± 1.32	0.00 ± 0.00	0.33 ± 0.39	15.82 ± 1.49	16.73 ± 2.98
BURK	07/13/87	05	0.00 ± 0.00	15.92 ± 1.96	0.00 ± 0.00	3.32 ± 0.49	2.87 ± 1.65	0.00 ± 0.00	0.00 ± 0.00	22.11 ± 4.33	31.88 ± 3.82
BURK	07/13/87	09	0.00 ± 0.00	15.73 ± 3.01	0.00 ± 0.00	6.15 ± 0.70	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	21.90 ± 3.91	31.80 ± 3.85
BURK	07/13/87	13	0.00 ± 0.00	13.60 ± 3.30	0.00 ± 0.00	4.58 ± 0.48	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.61 ± 3.37	28.47 ± 3.87
BURK	07/13/87	17	0.00 ± 0.00	8.56 ± 2.09	0.00 ± 0.00	3.05 ± 0.19	0.00 ± 0.00	0.00 ± 0.00	0.70 ± 0.30	12.32 ± 2.16	13.88 ± 2.21
BURK	07/14/87	09	0.00 ± 0.00	10.33 ± 2.67	0.00 ± 0.00	4.76 ± 0.34	2.28 ± 1.17	0.00 ± 0.00	0.27 ± 0.45	17.64 ± 3.01	19.21 ± 3.05
BURK	07/14/87	05	0.00 ± 0.00	16.43 ± 4.02	0.00 ± 0.00	9.73 ± 1.20	3.10 ± 1.92	0.00 ± 0.00	0.00 ± 0.00	34.25 ± 4.59	39.71 ± 3.87
BURK	07/14/87	09	0.00 ± 0.00	23.01 ± 5.27	0.00 ± 0.00	16.57 ± 2.66	0.00 ± 0.00	0.00 ± 0.00	0.42 ± 0.58	40.01 ± 5.55	55.95 ± 3.84
BURK	07/14/87	13	0.00 ± 0.00	14.32 ± 3.67	0.00 ± 0.00	11.68 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	26.20 ± 3.84	36.55 ± 3.87
BURK	07/14/87	17	0.00 ± 0.00	6.94 ± 3.35	0.00 ± 0.00	6.90 ± 0.49	4.13 ± 1.00	0.00 ± 0.00	0.02 ± 0.32	17.99 ± 3.58	27.45 ± 2.17
BURK	07/15/87	09	0.00 ± 0.00	8.50 ± 2.40	0.00 ± 0.00	13.34 ± 1.38	8.04 ± 1.34	0.00 ± 0.00	0.00 ± 0.00	29.88 ± 2.99	40.66 ± 3.06
BURK	07/15/87	05	0.00 ± 0.00	13.93 ± 1.56	0.00 ± 0.00	13.15 ± 1.67	10.15 ± 1.87	0.00 ± 0.00	0.00 ± 0.00	37.22 ± 4.24	52.28 ± 3.86
BURK	07/15/87	09	0.00 ± 0.00	19.87 ± 4.82	0.00 ± 0.00	20.67 ± 3.63	2.81 ± 2.42	0.00 ± 0.00	0.00 ± 0.00	43.34 ± 5.72	65.16 ± 3.85
BURK	07/15/87	13	0.00 ± 0.00	17.24 ± 4.21	0.00 ± 0.00	12.24 ± 1.52	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	29.48 ± 4.39	48.04 ± 3.85
BURK	07/15/87	17	0.00 ± 0.00	10.23 ± 2.54	0.00 ± 0.00	13.41 ± 1.49	10.98 ± 1.56	0.00 ± 0.00	0.00 ± 0.00	34.62 ± 3.22	49.65 ± 2.19
BURK	08/21/87	09	0.00 ± 0.00	7.47 ± 2.13	0.00 ± 0.00	8.72 ± 0.71	7.77 ± 1.17	0.00 ± 0.00	0.52 ± 0.39	24.48 ± 2.60	32.48 ± 2.96
BURK	08/21/87	05	0.00 ± 0.00	14.66 ± 3.35	0.00 ± 0.00	8.04 ± 0.90	2.16 ± 1.67	0.00 ± 0.00	0.31 ± 0.60	25.17 ± 4.34	49.61 ± 3.87
BURK	08/21/87	09	0.00 ± 0.00	10.96 ± 6.39	0.00 ± 0.00	9.04 ± 1.09	9.37 ± 1.68	0.00 ± 0.00	0.34 ± 0.60	29.73 ± 6.72	52.03 ± 3.95
BURK	08/21/87	13	0.00 ± 0.00	12.98 ± 3.43	0.00 ± 0.00	6.55 ± 0.64	0.00 ± 0.00	0.00 ± 0.00	0.52 ± 0.53	20.05 ± 3.56	33.67 ± 3.92
BURK	08/21/87	17	0.00 ± 0.00	11.41 ± 2.74	0.00 ± 0.00	7.56 ± 0.65	3.03 ± 1.30	0.00 ± 0.00	0.80 ± 0.31	22.79 ± 3.19	28.99 ± 2.15
BURK	08/21/87	09	0.00 ± 0.00	12.76 ± 3.25	0.00 ± 0.00	6.92 ± 0.66	3.41 ± 1.45	0.00 ± 0.00	0.14 ± 0.48	23.23 ± 3.68	30.95 ± 3.10
BURK	08/21/87	05	0.00 ± 0.00	20.30 ± 5.91	0.00 ± 0.00	7.22 ± 1.06	8.69 ± 2.24	0.00 ± 0.00	0.39 ± 0.60	37.00 ± 5.62	49.81 ± 3.75
BURK	08/21/87	09	0.00 ± 0.00	24.59 ± 5.83	0.00 ± 0.00	9.19 ± 1.52	3.21 ± 2.55	0.00 ± 0.00	0.52 ± 0.62	37.52 ± 6.51	58.91 ± 3.60
BURK	08/21/87	13	0.00 ± 0.00	16.95 ± 4.20	0.00 ± 0.00	13.22 ± 1.66	0.00 ± 0.00	0.00 ± 0.00	0.90 ± 0.60	30.96 ± 4.44	47.57 ± 3.85
BURK	08/21/87	17	0.00 ± 0.00	12.06 ± 2.89	0.00 ± 0.00	7.02 ± 0.67	8.26 ± 1.46	0.00 ± 0.00	0.66 ± 0.36	27.99 ± 3.35	34.44 ± 2.21
BURK	08/21/87	09	0.00 ± 0.00	10.85 ± 4.43	0.00 ± 0.00	7.55 ± 0.98	12.23 ± 2.14	0.00 ± 0.00	0.00 ± 0.00	36.63 ± 5.02	39.51 ± 3.04
BURK	08/21/87	05	0.00 ± 0.00	21.05 ± 5.27	0.00 ± 0.00	12.84 ± 2.09	19.96 ± 2.79	0.00 ± 0.00	0.00 ± 0.00	54.65 ± 6.14	58.79 ± 3.97

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source*	Primary Molar Vol. SCE ± σ [kg/m ³]	Secondary Vegetative Burning SCE ± σ [kg/m ³]	Secondary Soil/air SCE ± σ [kg/m ³]	Secondary Nitrate SCE ± σ [kg/m ³]	Secondary Construction (Limestone) SCE ± σ [kg/m ³]	Oil Combustion SCE ± σ [kg/m ³]	Marine Aerosol SCE ± σ [kg/m ³]	Measured Calculated Mass ± σ [μg/m ³]	Unexplained Mass ± σ [μg/m ³]
BURK	06/24/87 09	0.00 ± 0.00	24.53 ± 5.65	0.00 ± 0.00	22.18 ± 5.78	7.64 ± 3.55	0.00 ± 0.00	0.00 ± 0.00	28.17 ± 3.96
BURK	06/24/87 13	0.00 ± 0.00	17.24 ± 4.26	0.00 ± 0.00	27.98 ± 8.34	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	24.29 ± 6.51
BURK	06/24/87 17	0.00 ± 0.00	14.15 ± 3.32	0.00 ± 0.00	15.23 ± 2.60	6.97 ± 2.11	0.00 ± 0.00	0.00 ± 0.00	12.13 ± 4.76
BURK	06/24/87 09	0.00 ± 0.00	11.11 ± 2.91	0.00 ± 0.00	1.05 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	12.75 ± 3.07
BURK	06/24/87 05	1.31 ± 0.97	16.91 ± 4.18	0.00 ± 0.00	0.78 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	19.01 ± 4.34
BURK	06/24/87 09	1.00 ± 0.00	13.86 ± 3.65	0.00 ± 0.00	2.35 ± 0.39	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.81 ± 3.80
BURK	06/24/87 13	0.00 ± 0.00	13.80 ± 3.54	0.00 ± 0.00	3.13 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	16.92 ± 3.60
BURK	06/24/87 17	0.32 ± 0.36	9.76 ± 2.46	0.00 ± 0.00	4.12 ± 0.24	0.00 ± 0.00	0.00 ± 0.00	1.39 ± 0.34	15.60 ± 2.61
BURK	06/24/87 09	0.00 ± 0.00	11.49 ± 2.97	0.00 ± 0.00	5.58 ± 0.48	1.56 ± 1.28	0.00 ± 0.00	1.70 ± 0.45	20.33 ± 3.34
BURK	06/24/87 05	0.00 ± 0.00	13.54 ± 3.60	0.00 ± 0.00	5.76 ± 0.60	3.74 ± 1.51	0.00 ± 0.00	1.08 ± 0.33	21.80 ± 3.07
BURK	06/24/87 09	0.00 ± 0.00	18.33 ± 4.50	0.00 ± 0.00	10.47 ± 1.33	0.00 ± 0.00	0.00 ± 0.00	1.08 ± 0.35	24.14 ± 4.02
BURK	06/24/87 13	0.00 ± 0.00	11.36 ± 3.14	0.00 ± 0.00	11.87 ± 1.16	0.00 ± 0.00	0.00 ± 0.00	1.19 ± 0.34	21.33 ± 3.41
BURK	06/24/87 17	0.00 ± 0.00	6.70 ± 1.83	0.00 ± 0.00	11.99 ± 1.02	4.56 ± 1.02	0.00 ± 0.00	1.51 ± 0.33	24.77 ± 2.35
BURK	11/1/87 09	0.00 ± 0.00	23.24 ± 4.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.43 ± 0.16	23.67 ± 4.11
BURK	11/1/87 06	0.00 ± 0.00	17.18 ± 3.49	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.33 ± 0.19	20.86 ± 4.67
BURK	11/1/87 10	0.29 ± 0.79	7.29 ± 2.36	0.00 ± 0.00	0.23 ± 0.18	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.12	17.52 ± 3.49
BURK	11/1/87 14	0.00 ± 0.00	6.64 ± 2.13	0.00 ± 0.00	0.32 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	0.25 ± 0.17	7.23 ± 2.17
BURK	11/1/87 18	0.00 ± 0.00	21.70 ± 4.69	0.00 ± 0.00	0.42 ± 2.03	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.15	22.21 ± 4.59
BURK	11/1/87 09	0.00 ± 0.00	17.30 ± 3.21	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.16 ± 0.13	17.54 ± 3.22
BURK	11/1/87 06	0.00 ± 0.00	20.94 ± 4.66	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.67 ± 0.21	21.61 ± 4.07
BURK	11/1/87 10	0.00 ± 0.00	19.16 ± 4.26	0.00 ± 0.00	16.33 ± 2.23	0.00 ± 0.00	0.00 ± 0.00	0.41 ± 0.20	19.83 ± 4.63
BURK	11/1/87 14	0.00 ± 0.00	28.53 ± 6.53	0.00 ± 0.00	2.98 ± 1.14	46.77 ± 4.33	0.00 ± 0.00	0.61 ± 0.23	76.89 ± 7.91
BURK	11/1/87 10	0.00 ± 0.00	36.14 ± 6.70	0.00 ± 0.00	0.00 ± 0.00	29.19 ± 4.17	0.00 ± 0.00	0.88 ± 0.23	68.22 ± 7.90
BURK	11/1/87 14	0.00 ± 0.00	21.67 ± 5.24	0.00 ± 0.00	5.34 ± 1.94	17.35 ± 3.99	0.00 ± 0.00	1.06 ± 0.23	63.33 ± 9.06
BURK	11/1/87 06	0.00 ± 0.00	29.26 ± 6.56	0.00 ± 0.00	10.44 ± 2.09	32.71 ± 3.78	0.00 ± 0.00	0.76 ± 0.23	73.16 ± 7.71
BURK	11/1/87 10	0.00 ± 0.00	37.63 ± 8.12	0.00 ± 0.00	16.08 ± 4.08	41.81 ± 5.15	0.00 ± 0.00	0.98 ± 0.27	102.50 ± 9.03
BURK	11/1/87 14	0.00 ± 0.00	57.77 ± 6.63	0.00 ± 0.00	10.87 ± 1.30	0.00 ± 0.00	0.00 ± 0.00	0.86 ± 0.23	82.10 ± 4.22
BURK	11/1/87 18	0.00 ± 0.00	68.87 ± 13.42	0.00 ± 0.00	2.14 ± 5.09	48.05 ± 7.36	0.00 ± 0.00	0.16 ± 0.31	119.22 ± 15.47
BURK	12/3/87 09	0.00 ± 0.00	59.33 ± 12.07	0.00 ± 0.00	4.06 ± 4.10	62.95 ± 7.22	0.00 ± 0.00	0.17 ± 0.31	126.71 ± 14.21
BURK	12/3/87 06	0.00 ± 0.00							

Table B-1 (continued)
Individual Source Contributions to PM_{1.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/TIME ^b	Primary Geological SCE ± σ [μg/m ³]	Primary Molar Vol. Emissions SCE ± σ [μg/m ³]	Vegetative Burning SCE ± σ [μg/m ³]	Secondary Sulfate SCE ± σ [μg/m ³]	Secondary Nitrate (Limestone) SCE ± σ [μg/m ³]	Construction SCE ± σ [μg/m ³]	Oil Combustion SCE ± σ [μg/m ³]	Marine Aerosol SCE ± σ [μg/m ³]	Calculated Mass ± σ [μg/m ³]	Measured Mass ± σ [μg/m ³]	Unexplained Mass ± σ [μg/m ³]
BURK	12/03/87	10	0.00 ± 0.00	22.75 ± 5.45	0.00 ± 0.00	2.01 ± 0.76	33.83 ± 3.28	0.00 ± 0.00	0.10 ± 0.15	50.69 ± 6.43	79.90 ± 4.21	21.21 ± 7.69
BURK	12/03/87	14	0.00 ± 0.00	35.18 ± 7.30	0.00 ± 0.00	6.92 ± 1.98	65.27 ± 5.77	0.00 ± 0.00	0.13 ± 0.20	107.50 ± 9.72	150.24 ± 4.28	42.74 ± 10.62
BURK	12/03/87	18	0.00 ± 0.00	40.30 ± 11.36	0.00 ± 0.00	2.71 ± 3.96	40.17 ± 6.39	0.00 ± 0.00	0.12 ± 0.29	101.33 ± 13.57	128.28 ± 2.75	24.95 ± 13.85
BURK	12/10/87	00	0.00 ± 0.00	44.19 ± 7.69	0.00 ± 0.00	0.00 ± 0.00	5.46 ± 4.21	0.00 ± 0.00	0.09 ± 0.22	49.75 ± 8.77	59.97 ± 2.69	10.22 ± 9.17
BURK	12/10/87	06	0.00 ± 0.00	30.15 ± 5.83	0.00 ± 0.00	0.00 ± 0.00	0.42 ± 2.92	0.00 ± 0.00	0.23 ± 0.22	30.81 ± 6.53	55.39 ± 4.24	24.58 ± 7.79
BURK	12/10/87	10	0.00 ± 0.00	14.13 ± 3.29	0.00 ± 0.00	0.00 ± 0.00	5.75 ± 1.31	0.00 ± 0.00	0.21 ± 0.18	20.09 ± 3.63	38.93 ± 4.19	18.84 ± 5.54
BURK	12/10/87	14	0.00 ± 0.00	21.01 ± 5.89	0.00 ± 0.00	0.26 ± 0.63	31.76 ± 3.06	0.00 ± 0.00	0.46 ± 0.20	53.51 ± 6.00	66.83 ± 4.16	13.32 ± 7.30
BURK	12/10/87	18	0.00 ± 0.00	42.10 ± 7.34	0.00 ± 0.00	0.00 ± 0.00	15.14 ± 4.14	0.00 ± 0.00	0.35 ± 0.22	57.59 ± 8.47	65.01 ± 2.81	7.42 ± 8.92
BURK	12/11/87	00	0.00 ± 0.00	25.81 ± 4.77	0.00 ± 0.00	0.00 ± 0.00	7.84 ± 2.53	0.00 ± 0.00	0.37 ± 0.17	34.02 ± 5.40	67.25 ± 2.77	33.23 ± 6.07
BURK	12/11/87	06	0.00 ± 0.00	30.59 ± 7.17	0.00 ± 0.00	0.00 ± 0.00	5.51 ± 3.72	0.00 ± 0.00	0.00 ± 0.00	44.09 ± 8.06	57.33 ± 4.14	13.74 ± 9.08
BURK	12/11/87	10	0.00 ± 0.00	28.28 ± 5.52	0.00 ± 0.00	0.00 ± 0.00	20.46 ± 3.11	0.00 ± 0.00	0.00 ± 0.00	48.76 ± 6.34	87.58 ± 4.20	38.82 ± 7.60
BURK	12/11/87	14	0.00 ± 0.00	53.24 ± 10.97	0.00 ± 0.00	6.06 ± 3.57	76.71 ± 7.46	0.00 ± 0.00	0.00 ± 0.00	136.00 ± 13.40	179.72 ± 4.32	43.72 ± 14.08
BURK	12/11/87	18	0.00 ± 0.00	53.06 ± 9.14	0.00 ± 0.00	0.00 ± 0.00	9.90 ± 5.07	0.00 ± 0.00	1.43 ± 0.32	64.40 ± 10.46	102.28 ± 2.72	37.88 ± 10.81
CELA	06/19/87	00	0.00 ± 0.00	8.19 ± 2.22	0.00 ± 0.00	1.58 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	2.68 ± 0.31	12.44 ± 2.28	18.60 ± 3.10	6.16 ± 3.85
CELA	06/19/87	05	0.00 ± 0.00	18.00 ± 4.62	0.00 ± 0.00	8.50 ± 1.10	3.01 ± 1.06	0.00 ± 0.00	2.18 ± 0.56	32.10 ± 5.26	39.18 ± 3.81	7.08 ± 6.49
CELA	06/19/87	09	0.07 ± 0.91	14.62 ± 3.81	0.00 ± 0.00	10.30 ± 1.12	0.00 ± 0.00	0.00 ± 0.00	1.76 ± 0.56	27.55 ± 4.09	39.53 ± 4.01	11.98 ± 5.72
CELA	06/19/87	13	0.14 ± 0.61	8.47 ± 2.53	0.00 ± 0.00	5.21 ± 0.38	0.00 ± 0.00	0.00 ± 0.00	1.33 ± 0.51	15.14 ± 2.72	22.79 ± 3.99	7.65 ± 4.83
CELA	06/19/87	17	0.00 ± 0.00	9.53 ± 2.36	0.00 ± 0.00	4.98 ± 0.34	0.72 ± 1.05	0.00 ± 0.00	1.85 ± 0.35	17.07 ± 2.69	21.94 ± 2.23	4.87 ± 3.49
CELA	06/24/87	00	0.21 ± 0.20	11.18 ± 2.95	0.00 ± 0.00	23.97 ± 3.36	9.81 ± 1.81	0.00 ± 0.00	1.80 ± 0.52	46.07 ± 4.03	61.77 ± 3.11	15.70 ± 5.69
CELA	06/24/87	05	0.00 ± 0.00	18.91 ± 4.64	0.00 ± 0.00	27.44 ± 5.83	17.44 ± 2.85	0.00 ± 0.00	2.29 ± 0.66	66.07 ± 5.99	93.02 ± 3.96	26.95 ± 7.18
CELA	06/24/87	09	0.05 ± 1.22	21.43 ± 5.29	0.00 ± 0.00	35.47 ± 7.65	0.00 ± 0.00	0.00 ± 0.00	1.69 ± 0.63	58.64 ± 6.14	92.02 ± 3.98	33.38 ± 7.32
CELA	06/24/87	13	0.00 ± 0.00	13.79 ± 3.56	0.00 ± 0.00	24.69 ± 3.77	0.00 ± 0.00	0.00 ± 0.00	0.72 ± 0.52	39.19 ± 4.69	59.27 ± 4.00	20.08 ± 5.72
CELA	06/24/87	17	0.18 ± 0.49	7.72 ± 2.10	0.00 ± 0.00	13.31 ± 1.22	2.66 ± 1.10	0.00 ± 0.00	0.65 ± 0.34	24.53 ± 2.68	34.58 ± 2.25	10.05 ± 3.50
CELA	06/24/87	00	0.00 ± 0.00	10.89 ± 2.81	0.00 ± 0.00	19.58 ± 2.91	15.25 ± 1.97	0.00 ± 0.00	0.31 ± 0.08	46.03 ± 3.86	58.96 ± 3.21	12.93 ± 5.02
CELA	06/24/87	05	0.00 ± 0.00	18.50 ± 4.57	0.00 ± 0.00	23.51 ± 3.08	0.00 ± 0.00	0.00 ± 0.00	0.32 ± 0.34	22.84 ± 2.50	33.95 ± 2.26	11.11 ± 3.37
CELA	07/13/87	00	0.00 ± 0.00	11.59 ± 2.91	0.00 ± 0.00	4.11 ± 0.36	1.54 ± 1.24	0.00 ± 0.00	0.70 ± 0.40	17.94 ± 3.24	18.29 ± 3.04	0.35 ± 4.44
CELA	07/13/87	05	0.00 ± 0.00	18.12 ± 4.34	0.00 ± 0.00	6.06 ± 0.80	7.36 ± 1.95	0.00 ± 0.00	0.00 ± 0.00	31.53 ± 4.84	43.96 ± 3.84	12.45 ± 6.18

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ ^a Site ^b	Primary Molar Vol. Emissions SCE ± σ ^a Site ^b	Vegetative Burining SCE ± σ ^a Site ^b	Secondary Sulfate SCE ± σ ^a Site ^b	Secondary Nitrate (Limestone) SCE ± σ ^a Site ^b	On Combustion SCE ± σ ^a Site ^b	Marine Aerosol SCE ± σ ^a Site ^b	Calculated Mass ± σ ^a [μg/m ³]	Measured Mass ± σ ^a [μg/m ³]	Unexplained Mass ± σ ^a [μg/m ³]	
CELA	07/13/87	09	0.20 ± 0.20	15.79 ± 3.82	0.00 ± 0.00	7.02 ± 0.78	0.00 ± 0.00	0.00 ± 0.00	22.81 ± 3.92	21.60 ± 3.98
CELA	07/13/87	13	0.20 ± 0.20	6.53 ± 2.12	0.00 ± 0.00	4.77 ± 0.29	0.00 ± 0.00	0.00 ± 0.00	10.81 ± 2.19	15.13 ± 4.06
CELA	07/13/87	17	0.20 ± 0.20	5.77 ± 1.58	0.00 ± 0.00	2.63 ± 0.13	0.00 ± 0.00	0.24 ± 0.29	8.84 ± 1.64	9.63 ± 2.31
CELA	07/14/87	00	0.20 ± 0.20	5.31 ± 1.52	0.00 ± 0.00	7.65 ± 0.50	3.81 ± 0.34	0.00 ± 0.00	16.76 ± 1.88	22.91 ± 3.11
CELA	07/14/87	05	0.20 ± 0.20	18.97 ± 4.50	0.00 ± 0.00	17.32 ± 2.82	10.75 ± 2.41	0.00 ± 0.00	47.08 ± 5.41	52.42 ± 4.02
CELA	07/14/87	09	0.20 ± 0.20	19.83 ± 4.61	0.00 ± 0.00	19.59 ± 3.04	0.00 ± 0.00	0.17 ± 0.59	39.50 ± 4.96	45.90 ± 3.98
CELA	07/14/87	13	0.20 ± 0.20	10.61 ± 2.91	0.00 ± 0.00	10.83 ± 1.00	0.00 ± 0.00	0.00 ± 0.00	21.43 ± 3.07	25.89 ± 4.18
CELA	07/14/87	17	0.20 ± 0.20	6.42 ± 1.76	0.00 ± 0.00	7.59 ± 0.48	1.45 ± 0.85	0.00 ± 0.00	15.46 ± 2.07	21.89 ± 2.28
CELA	07/15/87	00	0.12 ± 0.42	9.21 ± 2.55	0.00 ± 0.00	13.83 ± 1.44	5.26 ± 1.32	0.00 ± 0.00	28.42 ± 3.17	40.90 ± 3.15
CELA	07/15/87	05	0.20 ± 0.20	17.28 ± 4.32	0.00 ± 0.00	16.58 ± 2.55	11.22 ± 2.25	0.00 ± 0.00	45.08 ± 5.12	57.70 ± 3.96
CELA	07/15/87	09	0.20 ± 0.20	20.17 ± 4.91	0.00 ± 0.00	16.42 ± 2.64	3.60 ± 2.35	0.00 ± 0.00	40.18 ± 5.68	55.61 ± 4.05
CELA	07/15/87	13	0.20 ± 0.20	12.67 ± 3.28	0.00 ± 0.00	10.34 ± 1.03	0.00 ± 0.00	0.00 ± 0.00	23.05 ± 3.43	35.79 ± 4.07
CELA	07/15/87	17	0.20 ± 0.20	8.69 ± 2.19	0.00 ± 0.00	14.26 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	22.97 ± 2.47	36.46 ± 2.32
CELA	08/27/87	00	0.00 ± 0.00	6.48 ± 1.94	0.00 ± 0.00	6.22 ± 0.40	3.08 ± 0.93	0.00 ± 0.00	5.4 ± 0.45	16.32 ± 2.28
CELA	08/27/87	05	0.06 ± 0.00	19.14 ± 4.65	0.00 ± 0.00	7.51 ± 1.07	10.24 ± 2.13	0.00 ± 0.00	0.00 ± 0.00	36.89 ± 5.22
CELA	08/27/87	09	0.08 ± 0.00	18.27 ± 4.32	0.00 ± 0.00	7.57 ± 0.94	0.00 ± 0.00	0.00 ± 0.00	0.80 ± 0.61	26.64 ± 4.47
CELA	08/27/87	13	0.00 ± 0.00	9.32 ± 2.62	0.00 ± 0.00	6.84 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	16.16 ± 2.72	27.92 ± 4.01
CELA	08/27/87	17	0.00 ± 0.00	11.20 ± 2.69	0.00 ± 0.00	8.31 ± 0.67	0.00 ± 0.00	0.00 ± 0.00	1.06 ± 0.38	20.57 ± 2.84
CELA	08/27/87	00	0.00 ± 0.00	16.84 ± 3.80	0.00 ± 0.00	8.28 ± 0.95	1.97 ± 1.81	0.00 ± 0.00	0.38 ± 0.47	27.47 ± 4.35
CELA	08/27/87	05	0.00 ± 0.00	25.39 ± 5.69	0.00 ± 0.00	9.13 ± 1.55	6.84 ± 2.65	0.00 ± 0.00	0.65 ± 0.60	42.01 ± 6.43
CELA	08/28/87	09	1.34 ± 0.64	8.04 ± 2.54	0.00 ± 0.00	16.34 ± 1.83	3.50 ± 1.32	0.00 ± 0.00	1.02 ± 0.59	30.24 ± 3.29
CELA	08/28/87	13	0.20 ± 0.20	11.05 ± 3.03	0.00 ± 0.00	12.33 ± 1.21	0.00 ± 0.00	0.00 ± 0.00	0.55 ± 0.62	23.93 ± 3.28
CELA	08/28/87	17	0.00 ± 0.00	10.37 ± 2.63	0.00 ± 0.00	7.13 ± 0.57	3.82 ± 1.23	0.00 ± 0.00	0.79 ± 0.37	22.11 ± 3.02
CELA	08/29/87	00	0.00 ± 0.00	13.15 ± 3.14	0.00 ± 0.00	10.46 ± 1.15	10.84 ± 1.73	0.00 ± 0.00	0.00 ± 0.00	34.45 ± 3.74
CELA	08/29/87	05	0.20 ± 0.20	21.73 ± 4.92	0.00 ± 0.00	17.40 ± 3.08	16.17 ± 2.77	0.00 ± 0.00	0.00 ± 0.00	55.30 ± 5.91
CELA	08/29/87	09	0.00 ± 0.00	14.10 ± 3.49	0.00 ± 0.00	25.41 ± 3.93	0.00 ± 0.00	0.00 ± 0.00	39.51 ± 4.02	64.58 ± 3.22
CELA	08/29/87	13	0.00 ± 0.00	13.32 ± 3.44	0.00 ± 0.00	27.06 ± 4.36	0.00 ± 0.00	0.00 ± 0.00	40.30 ± 4.02	61.71 ± 4.16
CELA	08/29/87	17	0.00 ± 0.00	9.83 ± 2.51	0.00 ± 0.00	14.76 ± 1.57	3.34 ± 1.31	0.00 ± 0.00	0.00 ± 0.00	40.07 ± 2.32
CELA	09/02/87	00	0.00 ± 0.00	22.87 ± 5.07	0.00 ± 0.00	2.39 ± 0.70	0.00 ± 0.00	0.00 ± 0.00	0.32 ± 0.43	25.57 ± 5.15
CELA	09/02/87	05	0.00 ± 0.00	23.39 ± 5.31	0.00 ± 0.00	1.27 ± 0.74	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.13	35.79 ± 3.06
CELA	09/02/87	10	0.00 ± 0.00	23.39 ± 5.31	0.00 ± 0.00	1.27 ± 0.74	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.13	35.79 ± 5.38

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date†	Primary Combustion [µg/m ³]	Secondary Exhaust [µg/m ³]	Secondary Vegetative Burning [µg/m ³]	Secondary Sulfate [µg/m ³]	Secondary SCE ± σ [µg/m ³]	Secondary SCE ± σ [µg/m ³]	ON (Imidose) [µg/m ³]	ON Combustion [µg/m ³]	ON SCE ± σ [µg/m ³]	Marine Aerosol [µg/m ³]	Calculated Mass ± σ [µg/m ³]	Measured Mass ± σ [µg/m ³]	Unexplained Mass ± σ [µg/m ³]
CELA	09/02/87	69	0.38 ± 0.08	32.87 ± 7.04	0.00 ± 0.00	2.64 ± 1.33	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.19 ± 0.38	34.91 ± 7.20	52.92 ± 4.11	18.01 ± 4.29	
CELA	09/02/87	13	0.38 ± 0.08	12.86 ± 3.14	0.00 ± 0.00	3.47 ± 0.37	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	15.35 ± 3.20	29.06 ± 3.96	13.51 ± 5.11	
CELA	09/02/87	17	0.38 ± 0.08	6.51 ± 2.19	0.00 ± 0.00	4.27 ± 0.26	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.08 ± 0.32	13.86 ± 2.28	21.15 ± 2.30	7.39 ± 3.24	
CELA	09/03/87	69	0.38 ± 0.08	9.42 ± 2.57	0.00 ± 0.00	6.62 ± 0.51	1.22 ± 1.13	0.00 ± 0.00	0.00 ± 0.00	2.30 ± 0.46	19.57 ± 2.94	26.21 ± 3.11	6.64 ± 4.28	
CELA	09/03/87	65	0.38 ± 0.08	30.30 ± 7.61	0.00 ± 0.00	9.25 ± 1.91	7.08 ± 3.09	0.00 ± 0.00	0.00 ± 0.00	2.09 ± 0.62	46.72 ± 7.81	56.17 ± 4.04	7.45 ± 8.79	
CELA	09/03/87	69	0.38 ± 0.08	19.54 ± 4.80	0.00 ± 0.00	12.32 ± 1.67	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.26 ± 0.56	31.12 ± 5.00	50.97 ± 3.99	17.85 ± 6.40	
CELA	09/03/87	13	0.38 ± 0.08	8.50 ± 2.62	0.00 ± 0.00	9.65 ± 0.79	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.08 ± 0.52	19.52 ± 2.81	28.11 ± 4.05	8.59 ± 4.93	
CELA	09/03/87	17	0.38 ± 0.08	6.30 ± 1.76	0.00 ± 0.00	9.58 ± 0.68	0.74 ± 0.91	0.00 ± 0.00	0.00 ± 0.00	1.47 ± 0.38	16.09 ± 2.20	25.57 ± 2.27	7.48 ± 3.16	
CELA	11/11/87	69	1.25 ± 1.19	20.79 ± 4.59	0.00 ± 0.00	0.02 ± 0.53	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.45 ± 0.15	22.51 ± 4.80	55.82 ± 2.80	33.31 ± 5.56	
CELA	11/11/87	66	0.27 ± 1.04	15.80 ± 3.33	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.31 ± 0.20	16.38 ± 3.50	39.16 ± 4.29	22.78 ± 5.54	
CELA	11/11/87	10	0.20 ± 0.80	8.03 ± 2.43	0.00 ± 0.00	0.25 ± 0.19	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.15 ± 0.18	8.44 ± 2.47	14.57 ± 4.37	6.13 ± 5.02	
CELA	11/11/87	14	0.20 ± 0.80	10.80 ± 3.19	0.00 ± 0.00	0.51 ± 0.25	4.74 ± 1.22	0.00 ± 0.00	0.00 ± 0.00	0.27 ± 0.18	16.43 ± 3.38	28.69 ± 4.24	12.26 ± 5.42	
CELA	11/11/87	18	0.28 ± 1.44	26.29 ± 4.97	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 2.52	0.00 ± 0.00	0.00 ± 0.00	0.38 ± 0.17	26.95 ± 5.76	42.62 ± 2.83	15.67 ± 6.42	
CELA	11/11/87	69	0.76 ± 1.12	19.47 ± 4.37	0.00 ± 0.00	0.04 ± 0.48	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.23 ± 0.15	20.49 ± 4.57	57.59 ± 2.83	37.10 ± 5.38	
CELA	11/11/87	64	0.94 ± 1.33	21.54 ± 4.76	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.20	21.69 ± 4.46	66.34 ± 4.34	44.65 ± 6.22	
CELA	11/11/87	10	0.38 ± 1.30	20.69 ± 5.30	0.00 ± 0.00	0.96 ± 0.63	25.41 ± 2.73	0.00 ± 0.00	0.00 ± 0.00	0.58 ± 0.20	46.02 ± 6.07	56.85 ± 4.34	8.83 ± 7.46	
CELA	11/12/87	14	0.00 ± 0.00	27.80 ± 6.42	0.00 ± 0.00	2.37 ± 1.05	29.56 ± 3.43	0.00 ± 0.00	0.00 ± 0.00	0.71 ± 0.23	60.44 ± 7.35	79.42 ± 4.35	18.98 ± 8.54	
CELA	11/12/87	18	3.49 ± 1.87	34.61 ± 7.32	0.00 ± 0.00	1.75 ± 1.37	11.92 ± 3.40	0.00 ± 0.00	0.00 ± 0.00	1.00 ± 0.24	52.56 ± 8.37	62.23 ± 2.81	9.67 ± 8.83	
CELA	11/12/87	69	3.32 ± 1.95	34.19 ± 7.63	0.00 ± 0.00	9.21 ± 2.24	17.00 ± 3.74	0.00 ± 0.00	0.00 ± 0.00	1.55 ± 0.25	67.18 ± 8.65	120.40 ± 2.93	53.22 ± 9.32	
CELA	11/13/87	18	0.00 ± 0.00	36.80 ± 7.95	0.00 ± 0.00	11.29 ± 2.82	40.75 ± 4.69	0.00 ± 0.00	0.00 ± 0.00	3.94 ± 0.36	92.70 ± 9.39	130.09 ± 4.44	45.31 ± 10.39	
CELA	11/13/87	66	1.63 ± 2.41	45.05 ± 9.39	0.00 ± 0.00	15.93 ± 4.11	45.77 ± 5.12	0.00 ± 0.00	0.00 ± 0.00	3.17 ± 0.46	103.32 ± 10.00	137.85 ± 4.52	34.33 ± 10.97	
CELA	11/13/87	10	0.00 ± 0.00	38.44 ± 8.33	0.00 ± 0.00	15.28 ± 4.04	16.76 ± 2.48	10.82 ± 2.12	0.00 ± 0.00	3.08 ± 0.44	41.94 ± 4.84	59.34 ± 4.36	13.40 ± 6.51	
CELA	11/13/87	14	0.00 ± 0.00	36.42 ± 8.58	0.00 ± 0.00	2.90 ± 1.88	49.33 ± 5.10	0.00 ± 0.00	0.00 ± 0.00	2.01 ± 0.37	94.30 ± 10.31	151.97 ± 4.44	57.67 ± 11.23	
CELA	11/13/87	18	0.67 ± 1.28	20.22 ± 5.17	0.00 ± 0.00	3.15 ± 0.72	45.18 ± 3.80	0.00 ± 0.00	0.00 ± 0.00	1.72 ± 0.21	26.21 ± 3.35	35.38 ± 2.73	9.17 ± 4.32	
CELA	12/03/87	14	6.53 ± 1.83	31.30 ± 7.26	0.00 ± 0.00	8.53 ± 1.94	40.23 ± 4.64	0.00 ± 0.00	0.00 ± 0.00	1.51 ± 0.32	114.68 ± 11.57	164.51 ± 2.97	49.83 ± 11.95	
CELA	12/03/87	69	6.53 ± 2.41	62.96 ± 12.83	0.00 ± 0.00	3.46 ± 4.42	31.79 ± 6.44	0.00 ± 0.00	0.00 ± 0.00	2.94 ± 0.50	109.94 ± 14.90	143.75 ± 2.96	33.81 ± 15.19	
CELA	12/03/87	18	7.29 ± 3.15	36.21 ± 6.41	0.00 ± 0.00	6.09 ± 3.47	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	43.24 ± 7.29	68.61 ± 2.78	25.37 ± 7.80		
CELA	12/10/87	00	0.00 ± 0.00	22.61 ± 4.66	0.00 ± 0.00	4.55 ± 2.25	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.07 ± 0.24	28.23 ± 5.18	43.90 ± 4.36	15.67 ± 6.77	
CELA	12/10/87	06	0.00 ± 0.00											

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time*	Primary		Secondary		Secondary		Construction		Oil		Marine		Measured		Unspecified	
		Geological SCE ± *	SCE ± *	Motor Veh. Emissions SCE ± *	Boring SCE ± *	Sulfate SCE ± *	SCE ± *	SCE ± *	SCE ± *	Aerosol SCE ± *	Calculated SCE ± *	Mass ± *	Mass ± *	Mass ± *	Mass ± *	Mass ± *	Mass ± *
		[$\mu\text{g/m}^3$]	[$\mu\text{g/m}^3$]		[$\mu\text{g/m}^3$]		[$\mu\text{g/m}^3$]		[$\mu\text{g/m}^3$]		[$\mu\text{g/m}^3$]						
CELA	12/1/87	10	0.00 ± 0.00	16.08 ± 3.54	0.00 ± 0.00	0.00 ± 0.00	11.14 ± 1.81	0.00 ± 0.00	0.00 ± 0.00	1.16 ± 0.24	26.37 ± 3.98	46.96 ± 4.25	18.59 ± 5.82				
CELA	12/1/87	14	0.00 ± 0.00	21.54 ± 5.84	0.00 ± 0.00	0.00 ± 0.00	24.60 ± 3.04	0.00 ± 0.00	0.00 ± 0.00	1.31 ± 0.26	51.47 ± 5.89	56.31 ± 4.24	4.84 ± 7.26				
CELA	12/1/87	18	0.00 ± 0.00	43.82 ± 7.50	0.00 ± 0.00	0.00 ± 0.00	20.89 ± 4.34	0.00 ± 0.00	0.00 ± 0.00	1.22 ± 0.27	65.14 ± 8.67	106.90 ± 2.81	41.76 ± 9.11				
CELA	12/1/87	22	1.35 ± 2.04	36.64 ± 7.02	0.00 ± 0.00	0.00 ± 0.00	11.13 ± 3.77	0.00 ± 0.00	1.30 ± 0.28	52.41 ± 8.24	97.36 ± 2.93	45.15 ± 8.75					
CELA	12/1/87	06	0.00 ± 0.00	52.44 ± 9.36	0.00 ± 0.00	0.00 ± 0.00	11.79 ± 5.01	0.00 ± 0.00	0.00 ± 0.00	1.65 ± 0.36	65.90 ± 10.66	98.18 ± 4.38	32.28 ± 11.52				
CELA	12/1/87	10	0.00 ± 0.00	42.10 ± 7.69	0.00 ± 0.00	0.00 ± 0.00	61.05 ± 6.02	0.00 ± 0.00	0.00 ± 0.00	2.20 ± 0.36	107.35 ± 9.78	137.99 ± 4.37	30.64 ± 10.71				
CLAR	06/19/87	05	1.82 ± 0.87	13.70 ± 3.41	0.00 ± 0.00	4.01 ± 0.46	7.36 ± 1.55	0.00 ± 0.00	0.00 ± 0.00	2.23 ± 0.41	128.48 ± 12.99	165.56 ± 4.43	31.08 ± 13.72				
CLAR	12/1/87	14	0.00 ± 0.00	52.71 ± 10.86	0.00 ± 0.00	9.36 ± 3.94	64.15 ± 6.84	0.00 ± 0.00	0.00 ± 0.00	1.82 ± 0.42	127.77 ± 16.45	164.28 ± 3.06	36.51 ± 16.73				
CLAR	12/1/87	18	0.00 ± 0.00	83.37 ± 14.12	0.00 ± 0.00	0.00 ± 0.00	42.58 ± 8.43	0.00 ± 0.00	0.00 ± 0.00	20.14 ± 3.50	33.79 ± 2.90	13.65 ± 4.55					
CLAR	06/19/87	00	0.22 ± 0.74	11.97 ± 3.61	0.00 ± 0.00	3.88 ± 0.36	2.84 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	1.24 ± 0.49	27.74 ± 4.13	41.22 ± 2.61	13.48 ± 5.49				
CLAR	06/19/87	05	0.00 ± 0.00	11.25 ± 3.28	0.00 ± 0.00	5.73 ± 0.55	1.07 ± 1.35	0.00 ± 0.00	0.00 ± 0.00	0.84 ± 0.59	18.92 ± 3.77	33.95 ± 4.12	14.93 ± 5.58				
CLAR	06/19/87	09	0.06 ± 0.81	11.32 ± 3.13	0.00 ± 0.00	6.49 ± 0.58	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.04 ± 0.63	18.86 ± 3.28	28.97 ± 3.99	10.11 ± 5.17				
CLAR	06/19/87	13	0.00 ± 0.00	18.77 ± 4.60	0.00 ± 0.00	4.40 ± 0.30	2.76 ± 1.04	0.00 ± 0.00	0.00 ± 0.00	1.56 ± 0.39	18.11 ± 2.72	27.01 ± 2.13	8.90 ± 3.45				
CLAR	06/19/87	17	0.15 ± 0.56	9.24 ± 2.35	0.00 ± 0.00	20.33 ± 3.36	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.59 ± 0.66	27.20 ± 2.57	40.22 ± 2.97	13.02 ± 3.91				
CLAR	06/24/87	00	0.00 ± 0.00	6.89 ± 2.02	0.00 ± 0.00	7.73 ± 0.62	11.88 ± 1.31	0.00 ± 0.00	0.00 ± 0.00	0.79 ± 0.66	36.44 ± 3.82	54.73 ± 3.73	18.29 ± 5.34				
CLAR	06/24/87	05	0.00 ± 0.00	11.47 ± 3.17	0.00 ± 0.00	8.99 ± 0.96	15.49 ± 1.81	0.00 ± 0.00	0.00 ± 0.00	0.49 ± 0.60	42.40 ± 5.43	74.88 ± 3.93	32.48 ± 6.70				
CLAR	06/24/87	09	0.00 ± 0.00	23.77 ± 5.83	0.00 ± 0.00	16.79 ± 2.65	5.53 ± 2.29	0.00 ± 0.00	0.00 ± 0.00	1.32 ± 0.66	44.03 ± 5.33	81.38 ± 3.91	37.35 ± 7.02				
CLAR	06/24/87	13	0.77 ± 1.23	21.34 ± 5.35	0.00 ± 0.00	9.35 ± 0.87	7.03 ± 1.25	0.00 ± 0.00	0.00 ± 0.00	0.95 ± 0.37	26.77 ± 2.77	38.39 ± 2.16	12.02 ± 3.51				
CLAR	06/24/87	17	0.00 ± 0.00	8.84 ± 2.25	0.00 ± 0.00	10.08 ± 1.13	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.78 ± 0.62	26.31 ± 4.13	48.70 ± 3.07	17.20 ± 4.40				
CLAR	06/24/87	00	0.33 ± 0.61	6.74 ± 2.47	0.00 ± 0.00	9.90 ± 0.95	12.61 ± 1.31	0.00 ± 0.00	0.00 ± 0.00	0.31 ± 0.49	58.79 ± 6.78	79.87 ± 3.76	21.58 ± 7.35				
CLAR	06/24/87	05	4.61 ± 1.37	23.78 ± 5.83	0.00 ± 0.00	9.23 ± 1.54	20.08 ± 2.65	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 0.62	46.54 ± 6.26	75.18 ± 3.91	28.64 ± 7.38				
CLAR	06/24/87	09	0.72 ± 1.21	20.75 ± 5.32	0.00 ± 0.00	16.23 ± 2.69	8.31 ± 2.59	0.00 ± 0.00	0.00 ± 0.00	0.53 ± 0.64	26.31 ± 2.77	38.39 ± 2.16	12.02 ± 3.51				
CLAR	06/24/87	13	1.66 ± 1.18	20.26 ± 4.94	0.00 ± 0.00	3.23 ± 0.68	5.46 ± 2.04	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.17	21.35 ± 4.26	35.37 ± 2.16	12.36 ± 3.54				
CLAR	06/24/87	17	0.00 ± 0.00	9.12 ± 2.38	0.00 ± 0.00	8.86 ± 0.72	4.51 ± 1.18	0.00 ± 0.00	0.00 ± 0.00	0.52 ± 0.35	23.01 ± 2.81	22.66 ± 4.00	12.16 ± 2.96				
CLAR	06/24/87	00	0.00 ± 0.00	7.35 ± 2.06	0.00 ± 0.00	2.70 ± 0.18	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.10	10.13 ± 2.10	14.33 ± 2.15	3.79 ± 2.92				
CLAR	07/13/87	05	0.00 ± 0.00	7.42 ± 1.90	0.00 ± 0.00	3.09 ± 0.17	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.03 ± 0.34	30.67 ± 5.38	38.17 ± 3.78	22.39 ± 5.67				
CLAR	07/13/87	09	0.00 ± 0.00	7.97 ± 2.27	0.00 ± 0.00	3.00 ± 0.22	1.00 ± 0.91	0.00 ± 0.00	0.00 ± 0.00	11.97 ± 2.48	13.37 ± 3.07	1.40 ± 3.95					
CLAR	07/13/87	00	0.00 ± 0.00	14.33 ± 3.69	0.00 ± 0.00	5.13 ± 0.57	2.80 ± 1.54	0.00 ± 0.00	0.00 ± 0.00	22.25 ± 4.07	27.77 ± 3.82	5.52 ± 5.58					
CLAR	07/13/87	05	0.00 ± 0.00														

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ [µg/m ³]	Primary Mater Veh. Emissions SCE ± σ [µg/m ³]	Secondary Vegetative Burning SCE ± σ [µg/m ³]	Secondary Sulfate SCE ± σ [µg/m ³]	Secondary Nitrate SCE ± σ [µg/m ³]	Construction (Limestone) SCE ± σ [µg/m ³]	On Combustion SCE ± σ [µg/m ³]	Marine Aerosol SCE ± σ [µg/m ³]	Calculated Mass ± σ [µg/m ³]	Measured Mass ± σ [µg/m ³]	Unexplained Mass ± σ [µg/m ³]
Site ^b	Date/Time ^a									
CLAR	07/14/87 09	0.88 ± 0.00	16.74 ± 4.08	0.90 ± 0.00	9.31 ± 1.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	26.25 ± 4.21	38.30 ± 3.88
CLAR	07/14/87 13	0.80 ± 0.00	23.79 ± 5.45	0.80 ± 0.00	15.10 ± 2.43	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	38.90 ± 5.67	58.68 ± 4.01
CLAR	07/14/87 17	0.80 ± 0.00	9.13 ± 2.38	0.80 ± 0.00	7.31 ± 0.57	4.19 ± 1.12	0.00 ± 0.00	0.00 ± 0.00	20.83 ± 2.67	28.70 ± 2.17
CLAR	07/15/87 09	0.10 ± 0.53	7.65 ± 2.23	0.00 ± 0.00	10.14 ± 0.91	9.27 ± 1.27	0.00 ± 0.00	0.00 ± 0.00	27.15 ± 2.79	37.58 ± 3.07
CLAR	07/15/87 05	0.88 ± 0.00	12.19 ± 3.39	0.80 ± 0.00	12.19 ± 1.45	11.85 ± 1.77	0.00 ± 0.00	0.00 ± 0.00	36.23 ± 3.93	49.86 ± 3.85
CLAR	07/15/87 09	0.00 ± 0.00	12.48 ± 3.46	0.80 ± 0.00	12.63 ± 1.47	5.97 ± 1.62	0.00 ± 0.00	0.00 ± 0.00	30.18 ± 4.01	42.47 ± 4.01
CLAR	07/15/87 13	0.00 ± 0.00	15.45 ± 3.96	0.80 ± 0.00	11.74 ± 1.47	5.63 ± 1.85	0.00 ± 0.00	0.00 ± 0.00	32.82 ± 4.35	46.47 ± 3.89
CLAR	07/15/87 17	0.80 ± 0.00	11.48 ± 2.72	0.80 ± 0.00	6.30 ± 0.51	1.80 ± 1.25	0.00 ± 0.00	0.00 ± 0.00	19.56 ± 3.08	31.43 ± 2.17
CLAR	08/27/87 09	0.44 ± 0.66	10.87 ± 2.73	0.80 ± 0.00	6.58 ± 0.54	6.18 ± 1.25	0.00 ± 0.00	0.00 ± 0.00	23.27 ± 3.16	35.51 ± 2.95
CLAR	08/27/87 05	5.33 ± 1.69	17.41 ± 4.41	0.80 ± 0.00	7.17 ± 0.91	10.02 ± 1.94	0.00 ± 0.00	0.00 ± 0.00	39.93 ± 5.05	64.60 ± 3.77
CLAR	08/27/87 09	1.73 ± 1.18	20.78 ± 5.80	0.80 ± 0.00	7.16 ± 1.03	2.10 ± 2.11	0.00 ± 0.00	0.00 ± 0.00	31.27 ± 5.65	58.59 ± 3.84
CLAR	08/27/87 13	0.54 ± 1.21	20.90 ± 4.99	0.80 ± 0.00	7.20 ± 1.05	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	28.66 ± 5.24	55.39 ± 3.95
CLAR	08/27/87 17	0.24 ± 0.59	9.81 ± 2.57	0.80 ± 0.00	6.34 ± 0.47	1.29 ± 1.11	0.00 ± 0.00	0.00 ± 0.00	17.68 ± 2.95	31.71 ± 2.17
CLAR	08/28/87 09	0.86 ± 0.76	12.59 ± 3.26	0.80 ± 0.00	6.09 ± 0.56	4.50 ± .41	0.00 ± 0.00	0.00 ± 0.00	24.04 ± 3.71	30.96 ± 3.06
CLAR	08/28/87 05	2.49 ± 1.07	17.74 ± 4.55	0.80 ± 0.00	5.79 ± 0.77	6.69 ± 1.90	0.00 ± 0.00	0.00 ± 0.00	32.12 ± 5.12	49.08 ± 3.82
CLAR	08/28/87 09	1.23 ± 1.14	19.32 ± 5.01	0.80 ± 0.00	7.40 ± 1.03	1.19 ± 2.04	0.00 ± 0.00	0.00 ± 0.00	29.14 ± 5.62	50.57 ± 3.91
CLAR	08/28/87 13	0.37 ± 1.27	22.08 ± 5.34	0.80 ± 0.00	14.56 ± 2.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	37.21 ± 5.85	49.32 ± 3.93
CLAR	08/28/87 17	1.61 ± 0.75	13.02 ± 3.25	0.80 ± 0.00	8.68 ± 0.85	4.82 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	28.14 ± 3.77	39.14 ± 2.19
CLAR	08/28/87 09	3.56 ± 1.19	20.01 ± 4.99	0.80 ± 0.00	8.56 ± 1.19	10.39 ± 2.24	0.00 ± 0.00	0.00 ± 0.00	42.82 ± 5.74	56.20 ± 3.10
CLAR	08/29/87 05	1.01 ± 1.07	17.78 ± 4.48	0.80 ± 0.00	10.92 ± 1.33	19.13 ± 2.43	0.00 ± 0.00	0.00 ± 0.00	0.13 ± 0.63	48.97 ± 5.39
CLAR	08/29/87 09	0.80 ± 0.80	17.83 ± 4.61	0.80 ± 0.00	20.01 ± 3.56	17.24 ± 2.61	0.00 ± 0.00	0.00 ± 0.00	55.31 ± 5.66	77.66 ± 3.92
CLAR	08/29/87 13	0.10 ± 1.13	19.18 ± 4.71	0.80 ± 0.00	26.51 ± 4.73	0.80 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	46.07 ± 5.34	75.57 ± 3.92
CLAR	08/29/87 17	0.29 ± 0.71	12.37 ± 3.12	0.80 ± 0.00	19.22 ± 2.66	7.19 ± 1.73	0.00 ± 0.00	0.00 ± 0.00	17.51 ± 2.73	25.05 ± 3.85
CLAR	09/02/87 09	0.49 ± 0.47	5.02 ± 1.63	0.80 ± 0.00	1.79 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.94 ± 3.40	29.65 ± 3.87
CLAR	09/02/87 05	11.51 ± 0.87	6.34 ± 2.10	0.80 ± 0.00	1.34 ± 0.17	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	19.18 ± 2.31	23.25 ± 3.81
CLAR	09/02/87 09	7.15 ± 0.78	8.84 ± 2.57	0.80 ± 0.00	1.53 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.51 ± 2.73	21.43 ± 4.72
CLAR	09/02/87 13	1.72 ± 0.83	12.04 ± 3.23	0.80 ± 0.00	4.14 ± 0.42	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	12.41 ± 3.06	16.71 ± 3.52
CLAR	09/02/87 17	0.63 ± 0.53	8.37 ± 2.14	0.80 ± 0.00	4.47 ± 0.27	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	14.06 ± 2.29	21.34 ± 2.16
CLAR	09/02/87 09	0.75 ± 0.73	11.28 ± 4.84	0.80 ± 0.00	4.92 ± 0.54	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.51 ± 4.97	27.21 ± 2.89
CLAR	09/02/87 05	3.26 ± 1.28	21.79 ± 5.12	0.80 ± 0.00	5.13 ± 0.89	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	15.03 ± 4.07	15.03 ± 6.77

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source	Primary Molar Vol.	Vegetative Emissions	Secondary Sulfate	Secondary Nitrate	Secondary Combustion (Linerdose)	Oil Combustion	Marine SCE ± σ (μg/m ³)	Aerosol	Calculated	Measured	Unexplained
Date/Time ^a	Site ^b	Primary SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Oil SCE ± σ (μg/m ³)	Marine SCE ± σ (μg/m ³)	Aerosol	Calculated	Measured	Unexplained
CLAR	09/01/87	09	1.43 ± 0.98	16.34 ± 4.82	0.00 ± 0.00	6.74 ± 0.77	0.00 ± 0.00	0.00 ± 0.00	0.35 ± 0.58	24.76 ± 4.27	45.81 ± 3.55
CLAR	09/01/87	13	0.30 ± 0.67	7.89 ± 2.47	0.00 ± 0.00	7.92 ± 0.59	0.00 ± 0.00	0.00 ± 0.00	0.83 ± 0.60	16.94 ± 2.74	29.01 ± 3.98
CLAR	09/01/87	17	0.00 ± 0.26	5.31 ± 1.34	0.00 ± 0.00	5.99 ± 0.33	2.78 ± 0.77	0.00 ± 0.00	0.70 ± 0.36	14.77 ± 1.85	20.46 ± 2.17
HAWT	09/01/87	09	0.14 ± 0.43	3.98 ± 1.42	0.00 ± 0.00	1.67 ± 0.10	0.00 ± 0.00	0.00 ± 0.00	2.95 ± 0.32	8.67 ± 1.35	16.68 ± 3.14
HAWT	09/01/87	05	1.44 ± 0.44	8.78 ± 2.51	0.00 ± 0.00	6.87 ± 0.51	0.00 ± 0.00	0.00 ± 0.00	3.12 ± 0.56	20.22 ± 2.75	36.44 ± 3.83
HAWT	09/01/87	09	0.15 ± 0.44	3.79 ± 1.67	0.00 ± 0.00	7.61 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	2.57 ± 0.52	14.11 ± 1.93	26.03 ± 4.07
HAWT	09/01/87	13	0.21 ± 0.47	2.08 ± 1.46	0.00 ± 0.00	3.84 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	2.51 ± 0.53	8.63 ± 1.67	12.94 ± 4.35
HAWT	09/01/87	17	0.00 ± 0.60	2.13 ± 0.81	0.00 ± 0.00	4.30 ± 0.16	0.64 ± 0.44	0.00 ± 0.00	1.89 ± 0.22	8.96 ± 1.32	15.12 ± 2.29
HAWT	09/01/87	09	0.00 ± 0.00	5.56 ± 1.74	0.00 ± 0.00	21.54 ± 2.51	0.00 ± 0.00	0.00 ± 0.00	2.40 ± 0.51	29.50 ± 2.41	47.76 ± 3.30
HAWT	09/01/87	05	0.93 ± 0.68	9.63 ± 2.86	0.00 ± 0.00	34.12 ± 6.59	3.54 ± 1.39	0.00 ± 0.00	2.33 ± 0.63	50.34 ± 4.26	70.50 ± 3.74
HAWT	09/01/87	09	1.27 ± 0.63	7.15 ± 2.32	0.00 ± 0.00	31.91 ± 5.42	0.00 ± 0.00	0.00 ± 0.00	2.30 ± 0.61	42.62 ± 3.40	60.87 ± 4.16
HAWT	09/01/87	13	0.41 ± 0.63	7.33 ± 2.34	0.00 ± 0.00	19.83 ± 2.28	0.00 ± 0.00	0.00 ± 0.00	0.82 ± 0.51	28.39 ± 2.90	39.66 ± 4.12
HAWT	09/01/87	17	1.28 ± 0.36	4.31 ± 1.36	0.00 ± 0.00	13.16 ± 0.97	0.00 ± 0.00	0.00 ± 0.00	1.16 ± 0.33	19.90 ± 1.74	54.94 ± 2.27
HAWT	09/25/87	09	0.79 ± 0.49	7.04 ± 2.12	0.00 ± 0.00	22.18 ± 2.87	2.51 ± 1.12	0.00 ± 0.00	0.00 ± 0.00	32.01 ± 2.98	43.13 ± 3.43
HAWT	09/25/87	05	0.20 ± 0.20	7.71 ± 2.35	0.00 ± 0.00	27.64 ± 4.37	2.70 ± 1.34	0.00 ± 0.00	0.98 ± 0.59	39.04 ± 3.47	58.93 ± 3.88
HAWT	09/25/87	09	0.00 ± 0.00	5.47 ± 1.97	0.00 ± 0.00	24.95 ± 3.35	0.00 ± 0.00	0.00 ± 0.00	1.37 ± 0.55	31.79 ± 2.74	46.93 ± 4.10
HAWT	09/25/87	13	0.00 ± 0.00	6.22 ± 2.04	0.00 ± 0.00	15.55 ± 1.46	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	21.77 ± 2.38	34.39 ± 4.12
HAWT	09/25/87	17	0.00 ± 0.00	3.08 ± 0.98	0.00 ± 0.00	11.36 ± 0.71	0.00 ± 0.00	0.00 ± 0.00	0.28 ± 0.30	14.75 ± 1.33	37.86 ± 2.29
HAWT	09/13/87	09	0.02 ± 0.05	0.41 ± 0.42	0.00 ± 0.00	2.99 ± 0.10	0.00 ± 0.00	0.00 ± 0.00	0.20 ± 0.28	3.63 ± 0.60	5.59 ± 3.21
HAWT	09/13/87	13	0.00 ± 0.00	0.93 ± 0.69	0.00 ± 0.00	6.11 ± 0.28	0.00 ± 0.00	0.00 ± 0.00	0.27 ± 0.40	7.35 ± 0.96	7.06 ± 3.92
HAWT	09/13/87	17	0.04 ± 0.09	3.02 ± 1.50	0.00 ± 0.00	7.26 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.48 ± 1.68	20.08 ± 4.03
HAWT	09/13/87	09	0.20 ± 0.42	4.91 ± 1.76	0.00 ± 0.00	5.40 ± 0.25	0.00 ± 0.00	0.00 ± 0.00	0.10 ± 0.40	6.41 ± 0.99	11.85 ± 4.07
HAWT	09/13/87	13	0.04 ± 0.10	4.16 ± 2.08	0.00 ± 0.00	22.53 ± 2.82	0.00 ± 0.00	0.00 ± 0.00	3.11 ± 0.33	8.41 ± 0.75	8.42 ± 2.30
HAWT	09/13/87	17	0.00 ± 0.00	5.18 ± 1.83	0.00 ± 0.00	7.15 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	0.17 ± 0.30	8.73 ± 0.84	17.32 ± 3.19
HAWT	09/13/87	09	0.03 ± 0.04	0.52 ± 0.48	0.00 ± 0.00	8.03 ± 0.39	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	27.12 ± 2.45	36.23 ± 4.09
HAWT	09/13/87	05	0.10 ± 0.45	4.10 ± 1.41	0.00 ± 0.00	22.11 ± 2.66	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	28.78 ± 2.72	33.60 ± 4.09
HAWT	09/13/87	09	0.07 ± 0.53	15.27 ± 1.40	0.00 ± 0.00	15.27 ± 1.40	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	14.49 ± 2.07	31.65 ± 4.09
HAWT	09/13/87	13	2.16 ± 0.58	5.04 ± 1.97	0.00 ± 0.00	15.27 ± 1.40	0.00 ± 0.00	0.00 ± 0.00	0.28 ± 0.55	21.53 ± 2.37	41.49 ± 4.13
HAWT	09/13/87	05	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	13.00 ± 2.62	22.98 ± 2.30
HAWT	09/13/87	17	0.00 ± 0.00	3.01 ± 1.04	0.00 ± 0.00	6.76 ± 0.29	0.00 ± 0.00	0.00 ± 0.00	0.21 ± 0.30	16.19 ± 1.73	24.21 ± 3.18
HAWT	09/13/87	09	0.06 ± 0.36	4.10 ± 1.41	0.00 ± 0.00	12.03 ± 0.86	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.02 ± 3.62	19.96 ± 4.76

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ [ng/m ³]	Mater Veh. Emissions SCE ± σ [ng/m ³]	Vegetative Burning SCE ± σ [ng/m ³]	Secondary Sulfate SCE ± σ [ng/m ³]	Secondary (Lignite) SCE ± σ [ng/m ³]	Combustion SCE ± σ [ng/m ³]	Oil SCE ± σ [ng/m ³]	Marine Aerosol SCE ± σ [ng/m ³]	Calculated Mass ± σ [ng/m ³]	Measured Mass ± σ [ng/m ³]	Unexplained Mass ± σ [ng/m ³]	
SCE ^b	Date/Time ^a	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	
HAWT	07/15/87 09	0.00 ± 0.00	4.34 ± 2.84	0.00 ± 0.00	14.37 ± 1.28	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	20.73 ± 2.33	34.70 ± 3.99	13.97 ± 4.67
HAWT	07/15/87 13	0.05 ± 0.12	1.35 ± 0.37	0.00 ± 0.00	5.53 ± 0.36	0.00 ± 0.00	0.00 ± 0.00	0.12 ± 0.12	7.05 ± 1.03	13.06 ± 4.18	6.01 ± 4.31
HAWT	07/15/87 17	0.05 ± 0.24	3.57 ± 1.18	0.00 ± 0.00	9.77 ± 0.56	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	13.41 ± 1.41	26.39 ± 2.23	12.98 ± 2.64
HAWT	08/2/87 00	0.00 ± 0.00	4.84 ± 1.36	0.00 ± 0.00	6.78 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	0.96 ± 0.42	11.79 ± 1.56	19.25 ± 3.05	7.46 ± 3.43
HAWT	08/2/87 05	0.07 ± 0.36	6.16 ± 2.60	0.00 ± 0.00	6.87 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	1.10 ± 0.55	14.21 ± 2.25	28.75 ± 3.96	14.54 ± 4.55
HAWT	08/2/87 09	0.00 ± 0.00	5.08 ± 1.83	0.00 ± 0.00	9.66 ± 0.66	0.00 ± 0.00	0.00 ± 0.00	1.18 ± 0.56	15.92 ± 2.08	16.71 ± 4.18	7.79 ± 4.67
HAWT	08/2/87 13	0.00 ± 0.55	4.12 ± 1.67	0.00 ± 0.00	6.78 ± 0.56	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	12.80 ± 1.91	0.00 ± 0.00	0.00 ± 0.00
HAWT	08/2/87 17	0.00 ± 0.00	2.65 ± 1.20	0.00 ± 0.00	8.26 ± 0.40	0.00 ± 0.00	0.00 ± 0.00	0.13 ± 0.32	11.94 ± 1.23	17.68 ± 2.10	5.74 ± 2.43
HAWT	08/25/87 00	0.00 ± 0.00	10.73 ± 4.28	0.00 ± 0.00	11.21 ± 1.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	22.69 ± 4.43	26.38 ± 3.11	3.69 ± 5.41
HAWT	08/25/87 05	0.00 ± 0.00	7.62 ± 2.16	0.00 ± 0.00	17.60 ± 1.83	0.00 ± 0.00	0.00 ± 0.00	0.51 ± 0.55	25.12 ± 2.61	31.52 ± 3.99	6.40 ± 4.77
HAWT	08/25/87 09	0.00 ± 0.00	9.21 ± 2.75	0.00 ± 0.00	22.92 ± 3.08	0.00 ± 0.00	0.00 ± 0.00	0.64 ± 0.57	32.77 ± 3.31	45.71 ± 4.76	12.94 ± 5.80
HAWT	08/25/87 13	0.00 ± 0.00	5.68 ± 1.96	0.00 ± 0.00	10.40 ± 0.76	0.00 ± 0.00	0.00 ± 0.00	0.69 ± 0.57	16.77 ± 2.22	19.68 ± 4.28	2.91 ± 4.82
HAWT	08/25/87 17	0.00 ± 0.00	11.96 ± 4.71	0.00 ± 0.00	11.12 ± 1.17	0.00 ± 0.00	0.00 ± 0.00	1.41 ± 0.39	24.51 ± 4.85	25.83 ± 2.26	1.32 ± 5.35
HAWT	08/29/87 00	1.82 ± 0.74	11.44 ± 3.03	0.00 ± 0.00	26.12 ± 3.94	0.00 ± 0.00	0.00 ± 0.00	1.98 ± 0.55	41.36 ± 3.74	58.55 ± 3.41	17.19 ± 5.06
HAWT	08/29/87 05	0.02 ± 0.72	9.97 ± 2.79	0.00 ± 0.00	28.87 ± 8.61	0.00 ± 0.00	0.00 ± 0.00	1.09 ± 0.58	39.95 ± 4.15	48.88 ± 3.96	8.93 ± 5.74
HAWT	08/29/87 09	0.15 ± 0.74	10.09 ± 2.96	0.00 ± 0.00	32.63 ± 5.82	0.00 ± 0.00	0.00 ± 0.00	0.32 ± 0.60	43.18 ± 3.93	61.14 ± 4.16	17.96 ± 5.72
HAWT	08/29/87 13	0.00 ± 0.00	6.02 ± 2.00	0.00 ± 0.00	22.54 ± 2.79	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.13	28.68 ± 2.61	132.64 ± 4.00	123.96 ± 4.78
HAWT	08/29/87 17	0.00 ± 0.00	2.31 ± 0.87	0.00 ± 0.00	10.87 ± 0.65	0.00 ± 0.00	0.00 ± 0.00	0.31 ± 0.30	13.46 ± 1.19	17.31 ± 2.34	4.03 ± 2.63
HAWT	09/02/87 00	0.00 ± 0.00	7.56 ± 2.10	0.00 ± 0.00	6.67 ± 0.43	0.00 ± 0.00	0.00 ± 0.00	3.37 ± 0.59	17.60 ± 2.28	25.40 ± 3.23	7.80 ± 3.95
HAWT	09/02/87 05	0.00 ± 0.00	8.36 ± 2.42	0.00 ± 0.00	6.42 ± 0.47	0.00 ± 0.00	0.00 ± 0.00	3.20 ± 0.67	18.00 ± 2.60	27.02 ± 4.04	9.02 ± 4.80
HAWT	09/02/87 09	0.00 ± 0.00	7.36 ± 2.27	0.00 ± 0.00	7.55 ± 0.54	0.00 ± 0.00	0.00 ± 0.00	1.79 ± 0.59	16.71 ± 2.46	17.96 ± 3.96	1.25 ± 4.66
HAWT	09/02/87 09	0.52 ± 0.91	0.00 ± 0.00	6.05 ± 0.38	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.01 ± 0.61	33.47 ± 4.11	40.06 ± 4.02	6.59 ± 5.75
HAWT	09/02/87 13	0.00 ± 0.00	5.62 ± 1.92	0.00 ± 0.00	13.92 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	1.22 ± 0.57	21.19 ± 2.72	29.41 ± 3.92	3.52 ± 4.46
HAWT	09/02/87 17	0.00 ± 0.00	4.93 ± 1.45	0.00 ± 0.00	6.06 ± 0.29	0.00 ± 0.00	0.00 ± 0.00	2.36 ± 0.41	13.35 ± 1.60	17.27 ± 2.33	3.92 ± 2.83
HAWT	09/03/87 00	3.13 ± 1.19	0.00 ± 0.00	14.13 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.67 ± 0.50	11.79 ± 1.45	14.02 ± 3.96	4.52 ± 4.16
HAWT	09/03/87 13	0.00 ± 0.00	8.06 ± 2.26	0.00 ± 0.00	11.25 ± 0.73	0.00 ± 0.00	0.00 ± 0.00	0.97 ± 0.33	16.07 ± 1.54	21.46 ± 2.33	5.39 ± 2.79
HAWT	09/03/87 17	0.00 ± 0.00	3.84 ± 1.24	0.00 ± 0.00	14.33 ± 3.67	0.00 ± 0.00	0.00 ± 0.00	0.28 ± 0.13	14.13 ± 2.86	19.04 ± 2.92	4.91 ± 4.09
HAWT	11/11/87 00	0.15 ± 0.86	13.70 ± 2.72	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.05 ± 0.14	19.18 ± 3.94	22.89 ± 4.50	13.71 ± 5.98
HAWT	11/11/87 06	0.93 ± 1.20	18.20 ± 3.75	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.05 ± 0.14			

Table B-1 (continued)
Individual Source Contributions to PM_{1.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source*	Site*	Date/Time*	Meas Vch. SCE ± σ (μg/m ³)	Vegetative Burning SCE ± σ (μg/m ³)	Secondary Sulfate SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary Construction (Lime/Asbestos) SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Aerosol SCE ± σ (μg/m ³)	Marine Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)	
HAWT	1/1/1987	10	0.26 ± 0.90	11.28 ± 3.08	0.00 ± 0.00	0.44 ± 0.27	0.00 ± 0.00	0.00 ± 0.00	0.10 ± 0.17	11.87 ± 3.26	17.88 ± 4.26	6.01 ± 5.36	
HAWT	1/1/1987	14	0.20 ± 0.20	5.35 ± 1.89	0.00 ± 0.00	0.97 ± 0.15	0.00 ± 0.00	0.00 ± 0.00	0.26 ± 0.16	6.38 ± 1.93	6.12 ± 4.25	-0.46 ± 4.67	
HAWT	1/1/1987	18	0.48 ± 0.66	9.19 ± 2.52	0.00 ± 0.00	1.70 ± 0.18	0.22 ± 0.06	0.00 ± 0.00	0.00 ± 0.00	11.50 ± 2.81	19.15 ± 2.97	7.65 ± 4.09	
HAWT	1/1/1987	00	0.00 ± 0.00	34.35 ± 5.83	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.49 ± 0.19	34.84 ± 5.83	39.22 ± 2.68	3.38 ± 6.50	
HAWT	1/1/1987	06	0.00 ± 0.00	36.13 ± 6.77	0.00 ± 0.00	0.00 ± 0.00	6.33 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	0.42 ± 0.23	42.88 ± 7.63	66.23 ± 4.43	23.35 ± 8.82
HAWT	1/1/1987	10	2.48 ± 1.64	28.41 ± 6.68	0.00 ± 0.00	9.05 ± 1.92	69.30 ± 8.03	0.00 ± 0.00	0.00 ± 0.00	0.35 ± 0.18	109.59 ± 10.67	135.43 ± 4.37	25.84 ± 11.61
HAWT	1/1/1987	14	0.00 ± 0.00	11.97 ± 3.19	0.00 ± 0.00	5.45 ± 0.55	21.07 ± 1.97	0.00 ± 0.00	0.00 ± 0.00	0.54 ± 0.16	38.12 ± 3.82	47.60 ± 4.33	9.48 ± 5.77
HAWT	1/1/1987	18	0.00 ± 0.00	11.95 ± 3.04	0.00 ± 0.00	1.97 ± 0.36	6.51 ± 1.33	0.00 ± 0.00	0.00 ± 0.00	1.38 ± 0.17	23.82 ± 3.34	29.95 ± 2.89	6.13 ± 4.45
HAWT	1/1/1987	00	0.00 ± 0.00	31.79 ± 6.61	0.00 ± 0.00	10.12 ± 2.23	19.39 ± 4.81	0.00 ± 0.00	0.00 ± 0.00	1.20 ± 0.22	62.50 ± 8.31	66.50 ± 2.97	4.00 ± 8.82
HAWT	1/1/1987	06	0.00 ± 0.00	22.43 ± 5.43	0.00 ± 0.00	16.14 ± 3.00	27.35 ± 2.24	0.00 ± 0.00	0.00 ± 0.00	1.41 ± 0.26	67.53 ± 6.57	79.05 ± 4.58	11.32 ± 8.01
HAWT	1/1/1987	10	0.00 ± 0.00	15.17 ± 3.99	0.00 ± 0.00	18.31 ± 2.99	18.03 ± 2.39	0.00 ± 0.00	0.00 ± 0.00	1.02 ± 0.22	52.35 ± 4.97	71.12 ± 4.47	18.57 ± 6.68
HAWT	1/1/1987	14	0.00 ± 0.00	8.15 ± 2.58	0.00 ± 0.00	7.47 ± 0.62	1.04 ± 1.14	0.00 ± 0.00	0.00 ± 0.00	1.71 ± 0.26	20.58 ± 2.94	36.15 ± 4.46	15.57 ± 5.34
HAWT	1/1/1987	18	0.00 ± 0.00	3.31 ± 1.20	0.00 ± 0.00	2.34 ± 0.10	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.73 ± 0.22	7.38 ± 1.26	22.64 ± 2.82	13.26 ± 3.09
HAWT	1/20/1987	00	0.00 ± 0.00	64.01 ± 12.58	0.00 ± 0.00	2.15 ± 4.42	34.34 ± 6.53	0.00 ± 0.00	0.00 ± 0.00	0.64 ± 0.27	101.34 ± 14.34	123.77 ± 3.30	22.43 ± 14.71
HAWT	1/20/1987	06	0.76 ± 3.99	74.88 ± 15.51	0.00 ± 0.00	3.59 ± 6.35	63.03 ± 8.51	0.00 ± 0.00	0.00 ± 0.00	0.63 ± 0.42	144.90 ± 18.31	224.00 ± 4.90	79.10 ± 18.95
HAWT	1/20/1987	10	0.13 ± 2.09	37.26 ± 8.44	0.00 ± 0.00	7.76 ± 2.31	62.88 ± 5.79	0.00 ± 0.00	0.00 ± 0.00	0.56 ± 0.27	108.59 ± 10.56	165.70 ± 4.65	57.11 ± 11.54
HAWT	1/20/1987	14	0.80 ± 1.34	21.50 ± 5.44	0.00 ± 0.00	6.03 ± 1.41	21.21 ± 2.99	0.00 ± 0.00	0.00 ± 0.00	0.91 ± 0.25	59.25 ± 6.48	101.51 ± 4.82	42.26 ± 8.08
HAWT	1/20/1987	18	0.00 ± 0.00	21.04 ± 4.81	0.00 ± 0.00	4.36 ± 0.73	13.79 ± 2.30	0.00 ± 0.00	0.00 ± 0.00	3.43 ± 0.35	42.63 ± 5.41	60.71 ± 2.95	18.08 ± 6.16
HAWT	1/20/1987	00	0.00 ± 0.00	61.87 ± 10.59	0.00 ± 0.00	0.00 ± 0.00	20.22 ± 6.02	0.00 ± 0.00	0.00 ± 0.00	0.80 ± 0.24	82.84 ± 12.19	98.44 ± 3.02	13.60 ± 12.56
HAWT	1/20/1987	06	0.00 ± 0.00	50.30 ± 9.13	0.00 ± 0.00	0.00 ± 0.00	16.66 ± 4.95	0.00 ± 0.00	0.00 ± 0.00	0.14 ± 0.23	67.11 ± 10.39	93.47 ± 4.96	28.36 ± 11.51
HAWT	1/20/1987	10	0.00 ± 0.00	19.42 ± 4.79	0.00 ± 0.00	0.54 ± 0.56	17.40 ± 2.30	0.00 ± 0.00	0.00 ± 0.00	0.26 ± 0.18	37.62 ± 5.37	61.00 ± 4.36	23.36 ± 6.92
HAWT	1/20/1987	14	0.00 ± 0.00	11.66 ± 3.23	0.00 ± 0.00	2.67 ± 0.34	15.76 ± 1.69	0.00 ± 0.00	0.00 ± 0.00	0.93 ± 0.18	31.03 ± 3.69	43.20 ± 4.24	12.17 ± 5.62
HAWT	1/20/1987	18	0.00 ± 0.00	26.60 ± 4.64	0.00 ± 0.00	14.41 ± 3.55	57.51 ± 5.51	0.00 ± 0.00	0.00 ± 0.00	0.67 ± 0.14	21.27 ± 4.64	38.81 ± 2.86	11.54 ± 5.45
HAWT	1/20/1987	00	0.00 ± 0.00	60.28 ± 10.35	0.00 ± 0.00	0.00 ± 0.00	5.78 ± 5.71	0.00 ± 0.00	0.00 ± 0.00	0.91 ± 0.22	66.97 ± 11.82	72.17 ± 2.99	5.20 ± 12.19
HAWT	1/20/1987	06	0.04 ± 3.69	69.47 ± 14.37	0.00 ± 0.00	2.34 ± 5.38	24.01 ± 6.81	0.00 ± 0.00	0.00 ± 0.00	0.51 ± 0.30	96.38 ± 16.50	112.47 ± 4.65	16.09 ± 17.14
HAWT	1/20/1987	10	0.00 ± 0.00	35.97 ± 7.82	0.00 ± 0.00	1.41 ± 3.55	57.51 ± 5.51	0.00 ± 0.00	0.00 ± 0.00	0.66 ± 0.19	108.55 ± 9.75	135.65 ± 4.53	27.10 ± 10.75
HAWT	1/20/1987	14	0.00 ± 0.00	14.40 ± 3.82	0.00 ± 0.00	12.40 ± 1.71	22.85 ± 2.41	0.00 ± 0.00	0.00 ± 0.00	0.25 ± 0.14	49.89 ± 4.70	61.76 ± 4.35	11.87 ± 6.40
HAWT	1/20/1987	18	0.00 ± 0.00	34.19 ± 7.09	0.00 ± 0.00	7.92 ± 1.90	12.92 ± 3.47	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.14	53.14 ± 8.01	68.35 ± 3.03	13.21 ± 8.56
L.BCC	06/19/1987	00	0.00 ± 0.00	5.19 ± 1.64	0.00 ± 0.00	1.65 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	0.21 ± 0.46	10.06 ± 1.74	18.08 ± 3.06	8.02 ± 3.52	
L.BCC	06/19/1987	05	3.92 ± 0.54	2.26 ± 1.41	0.00 ± 0.00	5.51 ± 0.28	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.12 ± 0.52	14.81 ± 1.69	52.22 ± 4.04	37.41 ± 4.38

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Primary Meteoric Enhanced SCE ± σ (μg/m ³)	Vegetative Sulfate SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary (Limestone) SCE ± σ (μg/m ³)	Construction SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)	
Site ^b	Date	Time ^a									
LBOC	06/19/87	09	0.11 ± 0.49	4.93 ± 1.38	0.00 ± 0.00	6.75 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	1.66 ± 0.50	13.45 ± 2.10	23.05 ± 4.06
LBOC	06/19/87	13	0.12 ± 0.47	4.67 ± 1.81	0.00 ± 0.00	5.02 ± 0.39	0.00 ± 0.00	0.00 ± 0.00	1.71 ± 0.54	11.52 ± 2.02	23.87 ± 3.95
LBOC	06/19/87	17	0.20 ± 0.50	4.32 ± 1.37	0.00 ± 0.00	5.17 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	1.85 ± 0.31	11.34 ± 1.43	12.35 ± 4.44
LBOC	06/24/87	09	0.20 ± 0.50	4.20 ± 1.46	0.00 ± 0.00	13.93 ± 1.11	0.00 ± 0.00	0.00 ± 0.00	1.27 ± 0.43	19.41 ± 1.85	6.44 ± 2.62
LBOC	06/24/87	05	0.00 ± 0.00	4.12 ± 1.69	0.00 ± 0.00	22.04 ± 2.75	3.33 ± 0.96	0.00 ± 0.00	0.71 ± 0.50	30.19 ± 2.61	9.06 ± 3.64
LBOC	06/24/87	09	0.20 ± 0.00	3.11 ± 1.57	0.00 ± 0.00	10.16 ± 0.67	0.00 ± 0.00	0.00 ± 0.00	0.98 ± 0.46	14.25 ± 1.83	20.89 ± 4.02
LBOC	06/24/87	13	0.20 ± 0.00	3.11 ± 1.63	0.00 ± 0.00	7.74 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	1.10 ± 0.47	11.95 ± 1.82	11.89 ± 4.48
LBOC	06/24/87	17	0.04 ± 0.35	3.96 ± 1.32	0.00 ± 0.00	9.13 ± 0.63	2.40 ± 0.73	0.00 ± 0.00	1.26 ± 0.36	17.50 ± 1.77	26.38 ± 2.30
LBOC	06/24/87	09	0.20 ± 0.00	3.51 ± 1.36	0.00 ± 0.00	12.49 ± 0.90	0.00 ± 0.00	0.00 ± 0.00	1.37 ± 0.43	17.37 ± 1.71	8.88 ± 2.82
LBOC	06/25/87	05	0.15 ± 0.40	3.49 ± 1.56	0.00 ± 0.00	11.13 ± 0.78	0.00 ± 0.00	0.00 ± 0.00	1.25 ± 0.51	16.02 ± 1.90	20.25 ± 3.92
LBOC	06/24/87	09	0.21 ± 0.42	2.60 ± 1.52	0.00 ± 0.00	5.91 ± 0.31	0.00 ± 0.00	0.00 ± 0.00	1.46 ± 0.53	10.18 ± 1.75	13.58 ± 4.19
LBOC	06/25/87	13	0.12 ± 0.35	2.05 ± 1.46	0.00 ± 0.00	7.29 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	0.45 ± 0.50	9.91 ± 1.73	3.40 ± 4.54
LBOC	06/25/87	17	0.16 ± 0.39	4.97 ± 1.55	0.00 ± 0.00	9.76 ± 0.70	5.72 ± 0.89	0.00 ± 0.00	0.12 ± 0.29	20.73 ± 2.04	9.92 ± 3.60
LBOC	07/13/87	09	0.04 ± 0.22	3.60 ± 1.34	0.00 ± 0.00	2.65 ± 0.16	0.00 ± 0.00	1.50 ± 0.81	0.44 ± 0.28	8.23 ± 1.70	8.99 ± 3.07
LBOC	07/13/87	05	3.27 ± 0.84	12.80 ± 3.57	0.00 ± 0.00	4.05 ± 0.44	1.00 ± 1.38	0.00 ± 0.00	0.32 ± 0.39	21.43 ± 4.00	1.03 ± 3.54
LBOC	07/13/87	09	0.20 ± 0.30	7.95 ± 2.40	0.00 ± 0.00	6.99 ± 0.61	0.80 ± 0.80	1.67 ± 2.67	0.00 ± 0.00	16.61 ± 3.00	24.61 ± 5.57
LBOC	07/13/87	13	0.60 ± 0.30	1.35 ± 3.38	0.00 ± 0.00	6.17 ± 0.43	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.12 ± 3.48	15.77 ± 4.04
LBOC	07/13/87	17	0.04 ± 0.31	2.85 ± 1.65	0.00 ± 0.00	5.05 ± 0.20	0.00 ± 0.00	0.71 ± 0.62	0.25 ± 0.21	8.90 ± 1.44	10.93 ± 2.24
LBOC	07/14/87	09	3.22 ± 0.50	5.15 ± 1.74	0.00 ± 0.00	12.25 ± 0.94	0.00 ± 0.00	0.00 ± 0.00	0.40 ± 0.39	21.02 ± 2.09	4.05 ± 4.07
LBOC	07/14/87	05	0.11 ± 0.43	4.46 ± 1.68	0.00 ± 0.00	13.48 ± 1.09	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	18.06 ± 2.02	18.12 ± 3.94
LBOC	07/14/87	09	0.21 ± 0.57	7.52 ± 2.34	0.00 ± 0.00	13.71 ± 1.24	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	21.24 ± 2.66	27.38 ± 4.13
LBOC	07/14/87	13	0.47 ± 0.60	6.71 ± 2.17	0.00 ± 0.00	10.90 ± 0.86	0.00 ± 0.00	0.60 ± 0.43	0.00 ± 0.00	18.67 ± 2.52	25.01 ± 3.96
LBOC	07/14/87	17	0.26 ± 0.34	3.66 ± 1.23	0.00 ± 0.00	6.23 ± 0.42	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.20	11.95 ± 1.46	16.49 ± 2.33
LBOC	07/15/87	09	0.20 ± 0.00	1.35 ± 0.63	0.00 ± 0.00	6.96 ± 0.31	0.00 ± 0.00	0.00 ± 0.00	0.31 ± 0.65	13.46 ± 3.13	5.15 ± 3.24
LBOC	07/15/87	05	0.00 ± 0.00	2.53 ± 1.00	0.00 ± 0.00	7.17 ± 0.38	0.00 ± 0.00	0.00 ± 0.00	0.70 ± 1.17	13.39 ± 3.95	6.69 ± 4.12
LBOC	07/15/87	09	0.00 ± 0.00	1.71 ± 0.85	0.00 ± 0.00	3.73 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.44 ± 0.94	7.05 ± 3.85
LBOC	07/15/87	13	0.20 ± 0.14	1.74 ± 0.93	0.00 ± 0.00	2.14 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.10 ± 0.10	4.01 ± 1.02	6.06 ± 4.04
LBOC	07/15/87	17	0.10 ± 0.18	2.55 ± 0.96	0.00 ± 0.00	7.22 ± 0.32	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.11	9.96 ± 1.14	14.43 ± 2.21
LBOC	07/22/87	09	6.21 ± 0.91	13.85 ± 3.29	0.00 ± 0.00	7.64 ± 0.73	0.00 ± 0.00	0.00 ± 0.00	0.74 ± 0.51	28.45 ± 3.54	43.36 ± 3.33
LBOC	08/27/87	05	0.73 ± 0.84	12.77 ± 3.30	0.00 ± 0.00	7.61 ± 0.73	0.00 ± 0.00	0.00 ± 0.00	1.22 ± 0.61	22.31 ± 3.57	32.41 ± 3.98
LBOC										10.08 ± 5.35	

Table B-1 (continued)
Individual Source Contributions to PM_{1.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geophysical Source ± σ [m/m]	Primary Meteor Veh. Enhanced SCE ± σ [m/m]	Secondary Vegetative Burning SCE ± σ [m/m]	Secondary Sulfate SCE ± σ [m/m]	Secondary Nitrate SCE ± σ [m/m]	Secondary (Linocellose) SCE ± σ [m/m]	Combustion SCE ± σ [m/m]	Oil SCE ± σ [m/m]	Marine Aerosol SCE ± σ [μg/m³]	Calculated Mass ± σ [μg/m³]	Measured Mass ± σ [μg/m³]	Unexplained Mass ± σ [μg/m³]
Date/Time ^a	Site ^b										
06/22/87 09	LBCC	0.69 ± 2.65	7.84 ± 2.56	0.00 ± 0.00	8.79 ± 0.98	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	24.73 ± 3.43	32.63 ± 4.01
06/22/87 13	LBCC	2.49 ± 6.46	5.92 ± 2.65	0.00 ± 0.00	8.74 ± 0.59	0.00 ± 0.00	0.00 ± 0.00	0.19 ± 0.49	17.34 ± 2.32	24.44 ± 3.93	7.10 ± 4.56
06/22/87 17	LBCC	0.57 ± 0.40	5.48 ± 1.57	0.00 ± 0.00	9.45 ± 0.58	0.00 ± 0.00	0.00 ± 0.00	1.06 ± 0.30	16.48 ± 1.81	26.42 ± 2.21	9.94 ± 2.86
06/23/87 00	LBCC	0.80 ± 0.80	4.38 ± 1.55	0.00 ± 0.00	9.35 ± 0.64	2.64 ± 0.82	0.00 ± 0.00	0.14 ± 0.40	16.51 ± 1.97	26.45 ± 3.16	9.94 ± 3.72
06/23/87 05	LBCC	1.37 ± 0.24	12.71 ± 3.45	0.00 ± 0.00	17.02 ± 2.35	9.69 ± 1.46	0.00 ± 0.00	0.50 ± 0.54	41.29 ± 4.32	52.98 ± 4.02	11.69 ± 5.90
06/23/87 09	LBCC	0.46 ± 0.38	11.94 ± 3.35	0.00 ± 0.00	29.58 ± 4.99	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.31	42.04 ± 4.11	51.92 ± 4.00	9.88 ± 5.74
06/23/87 13	LBCC	0.93 ± 0.66	8.77 ± 2.53	0.06 ± 0.00	15.33 ± 1.51	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 0.50	23.22 ± 2.93	35.89 ± 3.92	10.67 ± 4.89
06/23/87 17	LBCC	0.20 ± 0.20	5.63 ± 1.59	0.00 ± 0.00	12.43 ± 0.92	0.00 ± 0.00	0.00 ± 0.00	0.99 ± 0.34	19.05 ± 1.89	25.63 ± 2.23	6.58 ± 2.92
06/23/87 00	LBCC	0.80 ± 0.60	7.90 ± 2.65	0.00 ± 0.00	19.30 ± 2.13	0.00 ± 0.00	0.00 ± 0.00	0.88 ± 0.46	27.69 ± 2.57	41.28 ± 3.12	13.59 ± 4.04
06/23/87 05	LBCC	0.50 ± 0.28	4.57 ± 1.75	0.00 ± 0.00	16.01 ± 1.47	0.00 ± 0.00	0.00 ± 0.00	0.57 ± 0.52	21.15 ± 2.19	31.97 ± 3.90	10.82 ± 4.47
06/23/87 09	LBCC	0.20 ± 0.20	4.04 ± 1.41	0.00 ± 0.00	19.14 ± 2.01	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	23.19 ± 2.00	36.37 ± 4.12	13.18 ± 4.58
06/23/87 13	LBCC	0.64 ± 0.34	5.03 ± 1.88	0.00 ± 0.00	16.03 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	21.11 ± 2.31	29.47 ± 4.05	8.36 ± 4.66
06/23/87 17	LBCC	0.20 ± 0.20	4.25 ± 1.30	0.00 ± 0.00	9.57 ± 0.55	0.00 ± 0.00	0.00 ± 0.00	0.59 ± 0.32	14.41 ± 1.53	19.80 ± 2.21	5.39 ± 2.69
06/23/87 00	LBCC	0.67 ± 0.54	7.99 ± 2.19	0.00 ± 0.00	6.62 ± 0.43	0.00 ± 0.00	0.00 ± 0.00	1.86 ± 0.46	17.13 ± 2.41	20.99 ± 2.96	3.86 ± 3.82
06/23/87 05	LBCC	0.20 ± 0.20	26.87 ± 6.10	0.00 ± 0.00	6.68 ± 1.32	0.00 ± 0.00	0.00 ± 0.00	2.72 ± 0.71	36.21 ± 6.25	40.73 ± 4.00	4.46 ± 2.42
06/23/87 09	LBCC	2.35 ± 1.39	24.69 ± 5.89	0.20 ± 0.00	10.95 ± 1.78	0.00 ± 0.00	0.00 ± 0.00	1.92 ± 0.67	40.10 ± 6.23	62.08 ± 3.97	21.96 ± 7.39
06/23/87 13	LBCC	0.50 ± 0.00	7.67 ± 2.32	0.10 ± 0.00	6.47 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	1.05 ± 0.58	15.19 ± 2.49	18.94 ± 4.02	3.75 ± 4.73
06/23/87 17	LBCC	0.00 ± 0.00	3.71 ± 1.22	0.00 ± 0.00	10.42 ± 0.63	0.00 ± 0.00	0.00 ± 0.00	2.08 ± 0.33	16.22 ± 1.49	17.54 ± 2.20	1.32 ± 2.66
06/23/87 00	LBCC	0.20 ± 0.20	1.74 ± 1.10	0.00 ± 0.00	11.63 ± 0.76	0.00 ± 0.00	0.00 ± 0.00	1.97 ± 0.42	13.30 ± 1.47	21.56 ± 3.13	6.26 ± 3.46
06/23/87 05	LBCC	0.00 ± 0.00	4.64 ± 1.75	0.00 ± 0.00	13.90 ± 1.16	0.00 ± 0.00	0.00 ± 0.00	1.73 ± 0.50	20.27 ± 2.12	24.35 ± 3.97	4.06 ± 4.50
06/23/87 09	LBCC	0.45 ± 0.97	16.66 ± 3.89	0.00 ± 0.00	0.28 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	1.70 ± 0.58	17.64 ± 2.13	21.07 ± 4.20	3.23 ± 4.71
06/23/87 13	LBCC	0.00 ± 0.00	4.59 ± 1.82	0.00 ± 0.00	11.55 ± 0.67	0.00 ± 0.00	0.00 ± 0.00	0.77 ± 0.35	12.57 ± 1.21	17.10 ± 3.93	4.53 ± 4.11
06/23/87 17	LBCC	0.60 ± 0.60	1.47 ± 0.83	0.00 ± 0.00	10.32 ± 0.65	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.18	11.29 ± 1.17	16.41 ± 4.42	5.18 ± 5.44
06/23/87 00	LBCC	0.12 ± 0.26	9.09 ± 2.02	0.00 ± 0.00	7.83 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	0.98 ± 0.25	10.11 ± 0.88	13.45 ± 2.13	3.34 ± 2.30
06/23/87 05	LBCC	0.00 ± 0.00	1.29 ± 0.61	0.00 ± 0.00	1.31 ± 0.31	1.59 ± 1.32	0.00 ± 0.00	0.25 ± 0.19	17.68 ± 3.89	24.02 ± 4.50	6.34 ± 5.95
06/23/87 09	LBCC	0.74 ± 1.82	19.94 ± 4.82	0.00 ± 0.00	0.03 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	0.42 ± 0.16	24.88 ± 5.03	28.37 ± 2.87	3.49 ± 5.79
06/23/87 13	LBCC	1.30 ± 1.28	0.76 ± 0.22	0.00 ± 0.00	1.79 ± 1.04	0.00 ± 0.00	0.00 ± 0.00	0.02 ± 0.18	0.00 ± 0.00	0.00 ± 4.24	53.54 ± 2.84
06/23/87 17	LBCC	0.12 ± 0.26	42.68 ± 7.79	0.00 ± 0.00	12.08 ± 3.48	0.00 ± 0.00	0.00 ± 0.00	0.73 ± 0.26	59.01 ± 8.87	66.20 ± 4.40	7.19 ± 9.90
06/23/87 00	LBCC	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

Table B-1 (continued)
Individual Source Contributions to $PM_{2.5}$ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site	Date/Time ^a	Primary Geological	Mater Veh.	Vegetative	Secondary		Secondary (Lignite)		Oil Combustion		Marine		Measured Mass \pm σ ($\mu\text{g}/\text{m}^3$)	Unexplained Mass \pm σ ($\mu\text{g}/\text{m}^3$)
					SCE \pm σ ($\mu\text{g}/\text{m}^3$)	Aerosol SCE \pm σ ($\mu\text{g}/\text{m}^3$)	Aerosol SCE \pm σ ($\mu\text{g}/\text{m}^3$)							
LBOCC	11/12/87 10	0.93 \pm 0.60	18.43 \pm 4.74	0.60 \pm 0.00	3.38 \pm 0.63	16.64 \pm 2.21	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	38.45 \pm 5.29	52.71 \pm 4.56	14.26 \pm 6.98		
LBOCC	11/12/87 14	0.66 \pm 0.60	18.12 \pm 4.82	0.60 \pm 0.00	4.97 \pm 0.75	18.70 \pm 2.30	0.00 \pm 0.00	0.00 \pm 0.00	0.50 \pm 0.21	42.29 \pm 5.24	54.21 \pm 4.46	11.92 \pm 6.88		
LBOCC	11/12/87 18	0.80 \pm 0.60	24.14 \pm 5.23	0.60 \pm 0.00	3.59 \pm 0.81	9.00 \pm 2.43	0.00 \pm 0.00	0.00 \pm 0.00	0.96 \pm 0.17	37.71 \pm 5.84	45.37 \pm 2.86	7.66 \pm 6.50		
LBOCC	11/13/87 00	0.60 \pm 0.60	21.48 \pm 4.72	0.60 \pm 0.00	4.77 \pm 0.77	19.22 \pm 2.51	0.00 \pm 0.00	0.00 \pm 0.00	0.42 \pm 0.11	45.81 \pm 5.42	52.37 \pm 2.83	6.56 \pm 6.11		
LBOCC	11/13/87 04	0.60 \pm 0.60	12.97 \pm 3.56	0.60 \pm 0.00	6.61 \pm 0.75	41.83 \pm 3.31	0.00 \pm 0.00	0.00 \pm 0.00	0.62 \pm 0.15	62.04 \pm 4.94	70.94 \pm 4.38	8.90 \pm 6.60		
LBOCC	11/13/87 10	0.60 \pm 0.60	5.46 \pm 2.15	0.60 \pm 0.00	7.42 \pm 0.53	0.94 \pm 0.91	0.00 \pm 0.00	0.00 \pm 0.00	1.00 \pm 0.21	14.82 \pm 2.46	20.36 \pm 4.49	5.54 \pm 5.12		
LBOCC	11/13/87 14	0.60 \pm 0.60	5.84 \pm 2.61	0.60 \pm 0.00	4.72 \pm 0.30	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	1.49 \pm 0.24	12.05 \pm 2.10	9.83 \pm 4.43	-2.22 \pm 4.90		
LBOCC	11/13/87 18	0.00 \pm 0.00	5.16 \pm 1.57	0.60 \pm 0.00	4.59 \pm 0.22	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	0.92 \pm 0.15	10.67 \pm 1.64	13.08 \pm 2.82	2.41 \pm 3.26		
LBOCC	12/03/87 00	0.60 \pm 0.60	81.93 \pm 15.86	0.60 \pm 0.00	0.61 \pm 1.07	21.72 \pm 7.90	0.00 \pm 0.00	0.00 \pm 0.00	0.23 \pm 0.36	104.49 \pm 17.92	125.96 \pm 2.97	21.47 \pm 18.16		
LBOCC	12/03/87 06	0.60 \pm 0.60	94.83 \pm 18.96	0.60 \pm 0.00	5.05 \pm 10.28	68.61 \pm 10.40	0.00 \pm 0.00	0.00 \pm 0.00	0.35 \pm 0.44	170.84 \pm 21.86	194.17 \pm 4.55	23.33 \pm 22.33		
LBOCC	12/03/87 10	0.60 \pm 0.60	49.75 \pm 18.49	0.60 \pm 0.00	12.57 \pm 4.44	113.74 \pm 9.43	0.00 \pm 0.00	0.00 \pm 0.00	0.66 \pm 0.28	176.72 \pm 14.27	221.36 \pm 4.84	50.64 \pm 15.07		
LBOCC	12/03/87 14	0.60 \pm 0.60	35.34 \pm 7.63	0.60 \pm 0.00	12.19 \pm 2.98	72.25 \pm 6.24	0.00 \pm 0.00	0.00 \pm 0.00	0.31 \pm 0.23	120.29 \pm 10.17	166.92 \pm 4.59	46.63 \pm 11.16		
LBOCC	12/03/87 18	0.60 \pm 0.60	56.12 \pm 11.42	0.60 \pm 0.00	3.00 \pm 3.69	22.52 \pm 5.74	0.00 \pm 0.00	0.00 \pm 0.00	0.43 \pm 0.24	84.06 \pm 12.93	104.59 \pm 2.90	20.53 \pm 13.25		
LBOCC	12/10/87 00	0.60 \pm 0.60	87.26 \pm 14.76	0.60 \pm 0.00	0.00 \pm 0.00	23.69 \pm 8.40	0.00 \pm 0.00	0.00 \pm 0.00	0.71 \pm 0.32	111.66 \pm 17.01	122.83 \pm 2.97	11.17 \pm 17.27		
LBOCC	12/10/87 06	0.60 \pm 0.60	69.56 \pm 12.10	0.60 \pm 0.00	0.00 \pm 0.00	34.57 \pm 7.04	0.00 \pm 0.00	0.00 \pm 0.00	0.72 \pm 0.31	104.87 \pm 14.00	109.16 \pm 4.31	4.29 \pm 14.65		
LBOCC	12/10/87 10	1.16 \pm 1.71	29.96 \pm 6.91	0.60 \pm 0.00	3.53 \pm 1.24	49.18 \pm 4.51	0.00 \pm 0.00	0.00 \pm 0.00	0.19 \pm 0.22	83.12 \pm 8.30	107.02 \pm 4.63	23.90 \pm 9.68		
LBOCC	12/10/87 14	0.66 \pm 1.29	20.67 \pm 5.69	0.60 \pm 0.00	1.42 \pm 0.62	19.99 \pm 2.45	0.00 \pm 0.00	0.00 \pm 0.00	0.05 \pm 0.19	42.12 \pm 5.85	44.77 \pm 4.51	2.65 \pm 7.39		
LBOCC	12/10/87 18	0.60 \pm 0.60	34.72 \pm 6.22	0.60 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	0.28 \pm 0.16	37.00 \pm 6.22	43.58 \pm 2.93	6.58 \pm 6.88		
LBOCC	12/11/87 00	0.60 \pm 0.60	40.68 \pm 7.16	0.60 \pm 0.00	0.00 \pm 0.00	5.45 \pm 3.88	0.00 \pm 0.00	0.00 \pm 0.00	0.13 \pm 0.16	46.25 \pm 8.14	54.70 \pm 2.90	8.45 \pm 8.64		
LBOCC	12/11/87 06	0.60 \pm 0.60	39.72 \pm 8.50	0.60 \pm 0.00	1.71 \pm 1.87	15.69 \pm 3.97	0.00 \pm 0.00	0.00 \pm 0.00	0.16 \pm 0.17	57.27 \pm 9.48	62.14 \pm 4.39	4.87 \pm 10.45		
LBOCC	12/11/87 10	0.60 \pm 0.60	19.21 \pm 4.88	0.60 \pm 0.00	5.07 \pm 0.82	31.61 \pm 2.99	0.00 \pm 0.00	0.00 \pm 0.00	0.06 \pm 0.12	55.95 \pm 5.80	67.27 \pm 4.42	11.32 \pm 7.29		
LBOCC	12/11/87 14	0.60 \pm 0.60	28.18 \pm 6.49	0.60 \pm 0.00	10.24 \pm 2.04	47.94 \pm 4.46	0.00 \pm 0.00	0.00 \pm 0.00	0.05 \pm 0.16	86.41 \pm 8.00	104.04 \pm 4.48	17.63 \pm 9.17		
LBOCC	12/11/87 18	0.60 \pm 0.60	71.40 \pm 13.90	0.60 \pm 0.00	11.06 \pm 6.52	29.34 \pm 7.14	0.00 \pm 0.00	0.00 \pm 0.00	0.42 \pm 0.26	112.22 \pm 13.83	125.11 \pm 2.89	12.89 \pm 16.99		
RIVR	06/19/87 00	0.42 \pm 0.61	7.76 \pm 2.31	0.60 \pm 0.00	3.87 \pm 0.27	6.45 \pm 1.04	0.28 \pm 0.33	0.00 \pm 0.00	0.90 \pm 0.42	19.89 \pm 2.71	27.74 \pm 3.13	7.85 \pm 4.14		
RIVR	06/19/87 10	0.77 \pm 0.90	12.23 \pm 3.41	0.60 \pm 0.00	4.17 \pm 0.48	24.35 \pm 2.20	0.23 \pm 0.50	0.00 \pm 0.00	0.41 \pm 0.24	52.30 \pm 4.31	65.58 \pm 3.07	13.28 \pm 5.29		
RIVR	06/19/87 14	2.06 \pm 0.88	12.04 \pm 3.37	0.60 \pm 0.00	3.21 \pm 0.42	7.02 \pm 1.95	0.17 \pm 0.49	0.00 \pm 0.00	0.00 \pm 0.00	24.50 \pm 4.07	34.96 \pm 3.98	10.46 \pm 5.69		
RIVR	06/19/87 17	0.77 \pm 0.55	6.99 \pm 2.28	0.60 \pm 0.00	4.32 \pm 0.20	8.68 \pm 1.10	0.13 \pm 0.31	0.00 \pm 0.00	1.28 \pm 0.28	23.21 \pm 2.68	32.05 \pm 2.20	8.84 \pm 3.47		
RIVR	06/24/87 00	0.18 \pm 0.76	11.24 \pm 3.15	0.60 \pm 0.00	7.36 \pm 0.75	32.59 \pm 2.66	0.33 \pm 0.44	0.00 \pm 0.00	0.60 \pm 0.29	52.30 \pm 4.31	65.58 \pm 3.07	13.28 \pm 5.29		
RIVR	06/24/87 05	4.92 \pm 1.32	19.89 \pm 5.30	0.60 \pm 0.00	13.40 \pm 2.29	36.65 \pm 3.47	1.58 \pm 0.77	0.00 \pm 0.00	0.94 \pm 0.41	73.39 \pm 6.71	94.19 \pm 4.37	16.80 \pm 8.01		
RIVR	06/24/87 09	2.32 \pm 1.35	21.28 \pm 5.42	0.60 \pm 0.00	15.40 \pm 2.97	69.12 \pm 5.51	0.59 \pm 0.79	0.00 \pm 0.00	0.41 \pm 0.39	109.12 \pm 8.98	136.30 \pm 4.27	27.18 \pm 9.14		

Table B-1 (continued)
Individual Source Contributions to PM_{1.0} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (kg/m ²)	Secondary Source ^a SCE ± σ (kg/m ²)	Primary Motor Veh. Emissions SCE ± σ (kg/m ²)	Vegetative Burning SCE ± σ (kg/m ²)	Secondary Saltface SCE ± σ (kg/m ²)	Secondary Nurture SCE ± σ (kg/m ²)	Secondary Construction SCE ± σ (kg/m ²)	On Combustion SCE ± σ (kg/m ²)	Marine Aerosol SCE ± σ (kg/m ²)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
RIVR	06/24/87	13	1.34 ± 1.29	16.46 ± 4.44	0.50 ± 0.00	10.00 ± 1.35	19.86 ± 2.35	0.26 ± 0.63	0.00 ± 0.00	0.47 ± 0.47	46.40 ± 5.32
RIVR	06/24/87	17	0.04 ± 0.06	13.91 ± 3.08	0.60 ± 0.00	9.40 ± 1.10	27.13 ± 2.49	0.10 ± 0.51	0.00 ± 0.00	0.67 ± 0.23	63.74 ± 4.62
RIVR	06/25/87	00	0.71 ± 0.49	13.59 ± 3.50	0.00 ± 0.00	8.30 ± 0.96	33.81 ± 2.86	1.45 ± 0.54	0.00 ± 0.00	0.92 ± 0.44	51.45 ± 5.15
RIVR	06/25/87	00	2.41 ± 1.22	18.90 ± 4.71	0.60 ± 0.00	13.06 ± 2.18	55.07 ± 4.54	0.54 ± 0.71	0.00 ± 0.00	0.24 ± 0.60	91.21 ± 6.88
RIVR	06/25/87	03	1.08 ± 0.88	12.65 ± 3.36	0.60 ± 0.00	6.41 ± 0.63	5.84 ± 1.45	0.14 ± 0.49	0.00 ± 0.00	0.14 ± 0.32	25.65 ± 3.91
RIVR	06/25/87	13	0.63 ± 0.79	12.72 ± 3.18	0.00 ± 0.00	6.36 ± 0.60	15.06 ± 1.74	0.23 ± 0.47	0.00 ± 0.00	0.47 ± 0.35	35.47 ± 3.84
RIVR	06/25/87	17	0.63 ± 0.79	12.70 ± 3.12	0.50 ± 0.00	6.37 ± 0.63	17.17 ± 1.65	0.15 ± 0.48	0.00 ± 0.00	0.06 ± 0.11	37.09 ± 3.84
RIVR	07/13/87	00	0.44 ± 0.83	17.32 ± 4.52	0.60 ± 0.00	5.52 ± 0.77	18.46 ± 2.26	3.14 ± 0.74	0.00 ± 0.00	0.02 ± 0.59	46.12 ± 5.34
RIVR	07/13/87	03	1.66 ± 1.15	13.84 ± 3.34	0.60 ± 0.00	5.02 ± 0.56	22.00 ± 2.12	1.12 ± 0.53	0.00 ± 0.00	0.12 ± 0.15	41.72 ± 4.33
RIVR	07/13/87	09	0.43 ± 0.92	15.17 ± 3.96	0.60 ± 0.00	7.39 ± 0.88	13.49 ± 1.93	0.14 ± 0.54	0.00 ± 0.00	0.02 ± 0.58	37.15 ± 4.70
RIVR	07/13/87	13	0.93 ± 1.02	15.17 ± 3.96	0.00 ± 0.00	4.90 ± 0.36	7.71 ± 1.20	0.18 ± 0.36	0.00 ± 0.00	0.02 ± 0.32	23.22 ± 2.94
RIVR	07/13/87	17	0.73 ± 0.62	9.58 ± 2.50	0.00 ± 0.00	5.01 ± 0.44	6.36 ± 1.43	0.00 ± 0.00	0.00 ± 0.00	0.33 ± 0.41	24.34 ± 3.63
RIVR	07/14/87	00	0.00 ± 0.00	12.64 ± 3.24	0.00 ± 0.00	4.85 ± 0.61	11.18 ± 1.03	0.68 ± 0.60	0.00 ± 0.00	0.04 ± 0.60	32.80 ± 4.57
RIVR	07/14/87	03	0.43 ± 1.04	15.43 ± 3.89	0.20 ± 0.00	11.30 ± 1.28	23.31 ± 2.08	0.08 ± 0.32	0.00 ± 0.00	0.70 ± 0.23	43.79 ± 3.34
RIVR	07/14/87	09	1.37 ± 0.95	13.80 ± 3.69	0.00 ± 0.00	7.92 ± 0.95	34.33 ± 2.92	0.53 ± 0.54	0.00 ± 0.00	0.02 ± 0.58	57.96 ± 4.96
RIVR	07/14/87	13	0.64 ± 1.21	18.69 ± 4.46	0.00 ± 0.00	12.05 ± 1.97	20.96 ± 2.62	0.23 ± 0.71	0.00 ± 0.00	0.00 ± 0.00	53.62 ± 5.73
RIVR	07/14/87	17	0.23 ± 0.76	12.25 ± 3.65	0.00 ± 0.00	10.49 ± 1.15	15.98 ± 1.86	0.13 ± 0.45	0.00 ± 0.00	0.00 ± 0.33	39.08 ± 3.85
RIVR	07/15/87	00	0.00 ± 0.00	8.40 ± 2.32	0.00 ± 0.00	16.83 ± 2.73	33.30 ± 2.92	0.47 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	62.27 ± 4.64
RIVR	07/15/87	03	10.44 ± 3.87	11.17 ± 2.83	0.00 ± 0.00	9.44 ± 1.06	32.46 ± 2.70	0.70 ± 0.44	0.00 ± 0.00	0.01 ± 0.46	69.28 ± 4.03
RIVR	07/15/87	09	0.72 ± 1.19	18.56 ± 4.63	0.00 ± 0.00	13.49 ± 2.25	45.26 ± 3.69	0.46 ± 0.70	0.00 ± 0.00	0.15 ± 0.52	76.66 ± 6.40
RIVR	07/15/87	13	0.56 ± 0.95	13.69 ± 3.77	0.00 ± 0.00	7.91 ± 0.94	28.22 ± 2.35	0.25 ± 0.54	0.00 ± 0.00	0.12 ± 0.16	50.75 ± 4.78
RIVR	07/15/87	17	0.13 ± 0.51	7.25 ± 2.02	0.00 ± 0.00	4.69 ± 0.29	16.30 ± 1.43	0.06 ± 0.29	0.00 ± 0.00	0.11 ± 0.10	28.33 ± 2.60
RIVR	07/15/87	21	3.90 ± 1.09	15.81 ± 4.27	0.00 ± 0.00	8.84 ± 1.14	21.50 ± 2.35	0.18 ± 0.61	0.00 ± 0.00	0.00 ± 0.00	50.21 ± 5.15
RIVR	08/27/87	00	0.85 ± 0.76	14.91 ± 3.64	0.00 ± 0.00	8.32 ± 0.93	19.19 ± 2.12	0.18 ± 0.54	0.00 ± 0.00	0.26 ± 0.34	45.00 ± 4.46
RIVR	08/27/87	03	5.37 ± 1.51	23.73 ± 5.80	0.00 ± 0.00	9.39 ± 1.64	43.66 ± 3.97	2.83 ± 0.94	0.00 ± 0.00	0.00 ± 0.00	57.80 ± 4.74
RIVR	08/27/87	09	0.50 ± 0.96	14.71 ± 3.54	0.00 ± 0.00	9.47 ± 1.16	30.09 ± 2.71	3.03 ± 0.64	0.00 ± 0.00	0.00 ± 0.00	84.85 ± 6.76
RIVR	08/27/87	13	3.69 ± 1.25	19.20 ± 4.82	0.00 ± 0.00	17.30 ± 4.51	9.51 ± 1.65	52.06 ± 4.65	0.61 ± 0.70	0.00 ± 0.00	28.33 ± 2.14
RIVR	08/27/87	17	12.59 ± 1.88	28.20 ± 6.41	0.00 ± 0.00	8.58 ± 1.73	35.86 ± 3.83	3.24 ± 1.11	0.00 ± 0.00	0.14 ± 0.57	79.02 ± 4.11
RIVR	08/28/87	03	7.58 ± 1.40	20.94 ± 5.17	0.00 ± 0.00	8.77 ± 1.40	56.20 ± 4.57	1.26 ± 0.80	0.00 ± 0.00	0.00 ± 0.00	64.62 ± 4.18
RIVR	08/28/87	09	3.89 ± 1.25	16.34 ± 2.88	0.00 ± 0.00	16.34 ± 2.88	28.74 ± 3.09	0.20 ± 0.72	0.00 ± 0.00	0.00 ± 0.00	99.16 ± 4.08
RIVR	08/28/87	13	3.69 ± 1.25	19.20 ± 4.82	0.00 ± 0.00	17.30 ± 4.51	9.51 ± 1.65	52.06 ± 4.65	0.61 ± 0.70	0.00 ± 0.00	28.81 ± 6.59

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ [kg/m ³]	Primary Ephemeral SCE ± σ [kg/m ³]	Primary Vegetative Burning SCE ± σ [kg/m ³]	Secondary Sulfate SCE ± σ [kg/m ³]	Secondary (Limestone) SCE ± σ [kg/m ³]	Oil Combustion SCE ± σ [kg/m ³]	Marine Aerosol SCE ± σ [kg/m ³]	Calculated Mass ± σ [kg/m ³]	Measured Mass ± σ [kg/m ³]	Unexplained Mass ± σ [kg/m ³]				
Site	Date/Time ^a	[kg/m ³]	[kg/m ³]	[kg/m ³]	[kg/m ³]	[kg/m ³]	[kg/m ³]	[kg/m ³]	[kg/m ³]	[kg/m ³]			
RVR	06/29/87	17	1.47 ± 0.95	15.59 ± 3.70	0.00 ± 0.00	14.21 ± 2.18	37.17 ± 3.27	0.12 ± 0.57	0.00 ± 0.00	0.51 ± 0.35	69.07 ± 5.34	86.73 ± 2.29	17.66 ± 5.81
RVR	06/29/87	60	1.61 ± 0.82	11.88 ± 3.82	0.00 ± 0.00	12.46 ± 1.74	49.69 ± 3.85	0.31 ± 0.47	0.00 ± 0.00	0.14 ± 0.48	74.98 ± 5.17	94.79 ± 3.27	19.81 ± 6.12
RVR	06/29/87	65	2.08 ± 1.43	22.30 ± 5.34	0.00 ± 0.00	12.51 ± 2.25	57.66 ± 4.80	1.14 ± 0.85	0.00 ± 0.00	0.00 ± 0.00	96.98 ± 7.52	112.92 ± 4.25	15.94 ± 8.64
RVR	06/29/87	69	1.95 ± 1.28	20.11 ± 5.80	0.00 ± 0.00	16.46 ± 3.20	65.72 ± 5.27	0.42 ± 0.75	0.00 ± 0.00	0.00 ± 0.00	104.66 ± 7.63	128.57 ± 4.11	23.91 ± 8.67
RVR	06/29/87	13	1.67 ± 0.87	11.73 ± 3.30	0.00 ± 0.00	10.69 ± 1.22	13.87 ± 1.79	0.04 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	37.99 ± 4.04	54.69 ± 3.95	16.70 ± 5.65
RVR	06/29/87	17	1.36 ± 0.76	12.63 ± 3.65	0.00 ± 0.00	11.41 ± 1.37	24.16 ± 2.29	0.00 ± 0.45	0.00 ± 0.00	0.02 ± 0.33	49.06 ± 4.10	61.31 ± 2.21	12.31 ± 4.66
RVR	06/29/87	65	1.59 ± 1.32	21.26 ± 5.27	0.00 ± 0.00	1.36 ± 0.71	0.00 ± 0.00	5.40 ± 1.02	0.00 ± 0.00	0.00 ± 0.00	37.62 ± 5.64	45.82 ± 4.33	8.20 ± 7.23
RVR	06/29/87	69	3.60 ± 0.57	3.32 ± 1.57	0.00 ± 0.00	1.62 ± 0.13	0.00 ± 0.00	0.68 ± 0.27	0.00 ± 0.00	0.00 ± 0.00	8.62 ± 1.73	11.63 ± 4.03	3.01 ± 4.39
RVR	06/29/87	13	2.39 ± 0.59	4.26 ± 1.69	0.00 ± 0.00	1.45 ± 0.14	0.00 ± 0.00	0.44 ± 0.29	0.00 ± 0.00	0.00 ± 0.00	8.54 ± 1.85	11.23 ± 3.98	2.69 ± 4.39
RVR	06/29/87	17	1.43 ± 1.31	20.97 ± 4.67	0.00 ± 0.00	7.39 ± 1.06	25.36 ± 2.79	0.04 ± 0.76	0.00 ± 0.00	0.53 ± 0.35	61.75 ± 5.92	76.87 ± 2.25	15.12 ± 6.33
RVR	06/29/87	60	1.52 ± 0.91	13.84 ± 3.58	0.00 ± 0.00	5.00 ± 0.53	8.63 ± 1.59	1.10 ± 0.54	0.00 ± 0.00	0.73 ± 0.44	30.82 ± 4.15	36.17 ± 3.22	5.35 ± 5.25
RVR	06/29/87	65	4.49 ± 1.75	26.09 ± 6.72	0.00 ± 0.00	4.85 ± 1.25	13.07 ± 2.94	5.15 ± 1.21	0.00 ± 0.00	1.13 ± 0.64	57.37 ± 7.75	67.59 ± 4.05	10.22 ± 8.74
RVR	06/29/87	69	4.03 ± 1.12	16.52 ± 4.60	0.00 ± 0.00	5.53 ± 0.83	11.10 ± 1.94	1.46 ± 0.66	0.00 ± 0.00	0.00 ± 0.00	39.64 ± 5.06	53.36 ± 3.94	13.72 ± 6.41
RVR	06/29/87	13	3.72 ± 0.89	11.66 ± 3.36	0.00 ± 0.00	7.32 ± 0.72	3.03 ± 1.43	0.16 ± 0.46	0.00 ± 0.00	1.32 ± 0.61	27.21 ± 3.93	40.91 ± 3.97	13.76 ± 5.59
RVR	06/29/87	17	1.18 ± 0.53	7.68 ± 2.12	0.00 ± 0.00	4.39 ± 0.44	6.41 ± 1.05	0.07 ± 0.30	0.00 ± 0.00	1.56 ± 0.33	23.28 ± 2.55	29.73 ± 2.16	6.45 ± 3.34
RVR	06/29/87	60	0.69 ± 0.06	15.30 ± 3.52	0.00 ± 0.00	0.10 ± 0.32	0.00 ± 0.00	6.82 ± 1.04	0.00 ± 0.00	0.03 ± 0.13	22.26 ± 3.71	26.30 ± 2.80	4.04 ± 4.65
RVR	06/29/87	65	4.80 ± 1.51	18.03 ± 4.47	0.00 ± 0.00	0.04 ± 0.50	0.00 ± 0.00	12.99 ± 1.94	0.00 ± 0.00	0.41 ± 0.20	36.37 ± 5.15	79.93 ± 4.12	43.56 ± 6.60
RVR	06/29/87	10	0.80 ± 0.53	6.57 ± 2.16	0.00 ± 0.00	0.14 ± 0.16	0.00 ± 0.00	3.91 ± 1.26	0.00 ± 0.00	0.00 ± 0.00	11.43 ± 2.71	17.56 ± 4.24	6.13 ± 5.01
RVR	06/29/87	14	1.94 ± 1.36	16.11 ± 3.63	0.00 ± 0.00	0.00 ± 0.00	16.97 ± 2.04	2.69 ± 1.36	0.00 ± 0.00	0.28 ± 0.20	43.38 ± 4.59	55.86 ± 4.30	12.48 ± 6.29
RVR	06/29/87	18	12.49 ± 1.93	29.50 ± 5.56	0.00 ± 0.00	1.27 ± 2.83	6.14 ± 1.47	0.00 ± 0.00	0.28 ± 0.20	0.28 ± 0.20	49.48 ± 6.69	53.61 ± 2.80	3.93 ± 7.25
RVR	06/29/87	60	0.60 ± 0.00	19.44 ± 3.60	0.00 ± 0.00	0.00 ± 0.00	11.35 ± 1.36	0.00 ± 0.00	0.35 ± 0.13	31.15 ± 3.85	38.41 ± 2.79	7.26 ± 4.75	
RVR	06/29/87	65	6.79 ± 2.00	23.59 ± 5.58	0.00 ± 0.00	0.53 ± 0.76	0.00 ± 0.00	23.34 ± 2.90	0.00 ± 0.00	0.62 ± 0.21	54.87 ± 6.66	64.71 ± 4.05	9.84 ± 7.79
RVR	06/29/87	10	1.41 ± 0.98	8.12 ± 2.24	0.00 ± 0.00	0.00 ± 0.00	1.18 ± 0.94	4.31 ± 1.29	0.00 ± 0.00	0.07 ± 0.12	15.09 ± 2.97	21.54 ± 4.14	6.45 ± 5.07
RVR	06/29/87	14	5.67 ± 1.77	16.34 ± 4.27	0.00 ± 0.00	1.59 ± 0.47	33.79 ± 2.92	3.21 ± 1.37	0.00 ± 0.00	0.00 ± 0.00	60.00 ± 5.55	73.05 ± 4.29	13.05 ± 7.01
RVR	06/29/87	18	4.83 ± 1.86	30.57 ± 6.82	0.00 ± 0.00	2.41 ± 1.16	39.16 ± 4.04	4.05 ± 1.40	0.00 ± 0.00	0.19 ± 0.16	81.22 ± 8.17	97.10 ± 2.85	15.88 ± 8.65
RVR	06/29/87	60	0.60 ± 0.00	33.36 ± 6.98	0.00 ± 0.00	1.87 ± 1.31	36.12 ± 4.18	8.29 ± 1.51	0.00 ± 0.00	0.26 ± 0.18	81.89 ± 8.35	91.89 ± 2.85	12.00 ± 8.82
RVR	06/29/87	65	40.14 ± 8.83	0.00 ± 0.00	2.03 ± 2.02	50.40 ± 7.52	8.27 ± 2.02	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.27	104.23 ± 12.08	110.37 ± 4.20	6.14 ± 12.79
RVR	06/29/87	10	5.30 ± 2.46	40.28 ± 8.81	0.00 ± 0.00	11.18 ± 3.18	98.83 ± 8.07	3.82 ± 1.89	0.00 ± 0.00	0.11 ± 0.27	159.32 ± 12.48	176.26 ± 4.27	16.74 ± 13.19
RVR	06/29/87	14	3.66 ± 1.62	23.87 ± 5.73	0.00 ± 0.00	6.54 ± 1.20	45.51 ± 4.03	1.76 ± 1.46	0.00 ± 0.00	1.21 ± 0.24	87.54 ± 7.42	93.30 ± 4.19	10.76 ± 8.52
RVR	06/29/87	18	0.60 ± 0.00	15.01 ± 3.53	0.00 ± 0.00	4.54 ± 0.50	13.40 ± 1.80	2.96 ± 0.89	0.00 ± 0.00	1.65 ± 0.23	37.57 ± 4.13	41.69 ± 2.81	4.12 ± 5.00

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Material Geological	Primary Material Veh. Exhaust	Vegetative Burning	Secondary Sulfate	Secondary Nitrate (Limestone)	ON Combustion	Marine Aerosol	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)
NVR 12/03/87 00	2.35 ± 3.48	62.60 ± 12.67	0.00 ± 0.00	2.52 ± 4.28	56.66 ± 7.14	7.67 ± 2.47	0.00 ± 0.00	0.89 ± 0.33
NVR 12/03/87 06	5.22 ± 2.62	51.48 ± 11.61	0.00 ± 0.00	1.31 ± 3.04	41.02 ± 5.71	11.13 ± 2.44	0.00 ± 0.00	0.00 ± 0.00
NVR 12/03/87 10	11.60 ± 1.71	22.43 ± 5.80	0.00 ± 0.00	0.93 ± 0.73	20.51 ± 2.65	11.92 ± 1.93	0.00 ± 0.00	0.00 ± 0.00
NVR 12/03/87 14	16.74 ± 2.10	34.64 ± 7.84	0.00 ± 0.00	3.28 ± 1.60	30.93 ± 6.05	12.21 ± 1.72	0.00 ± 0.00	0.00 ± 0.00
NVR 12/03/87 18	12.26 ± 4.17	70.80 ± 15.22	0.00 ± 0.00	13.34 ± 7.30	184.98 ± 15.13	4.64 ± 2.70	0.00 ± 0.00	0.23 ± 0.36
NVR 12/10/87 00	1.32 ± 2.37	40.26 ± 7.30	0.00 ± 0.00	0.00 ± 0.00	22.51 ± 4.16	7.19 ± 1.80	0.00 ± 0.00	0.04 ± 0.23
NVR 12/10/87 06	2.27 ± 2.14	31.69 ± 6.56	0.00 ± 0.00	0.00 ± 0.00	7.62 ± 3.30	7.59 ± 1.88	0.00 ± 0.00	0.04 ± 0.22
NVR 12/10/87 10	1.54 ± 1.03	9.84 ± 2.57	0.00 ± 0.00	0.00 ± 0.00	1.80 ± 1.09	3.62 ± 1.29	0.00 ± 0.00	0.03 ± 0.12
NVR 12/10/87 14	2.08 ± 1.12	12.45 ± 3.53	0.00 ± 0.00	0.15 ± 0.32	26.34 ± 2.28	1.59 ± 1.27	0.00 ± 0.00	0.04 ± 0.14
NVR 12/10/87 18	4.70 ± 3.59	62.37 ± 11.60	0.00 ± 0.00	0.00 ± 0.00	52.58 ± 6.99	6.30 ± 2.43	0.00 ± 0.00	0.17 ± 0.34
NVR 12/10/87 00	0.19 ± 2.94	50.79 ± 9.61	0.00 ± 0.00	0.00 ± 0.00	20.20 ± 5.04	5.12 ± 2.03	0.00 ± 0.00	0.20 ± 0.26
NVR 12/10/87 06	0.10 ± 2.49	42.76 ± 7.80	0.00 ± 0.00	0.00 ± 0.00	15.99 ± 4.25	4.35 ± 1.76	0.00 ± 0.00	0.09 ± 0.24
NVR 12/10/87 10	2.82 ± 1.27	16.51 ± 3.66	0.00 ± 0.00	0.00 ± 0.00	15.13 ± 1.99	2.38 ± 1.32	0.00 ± 0.00	0.00 ± 0.15
NVR 12/10/87 14	2.29 ± 0.72	3.25 ± 1.34	0.00 ± 0.00	0.03 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.11
SNIC 06/19/87 00	0.46 ± 0.40	0.00 ± 0.03	2.16 ± 0.03	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.59 ± 0.23	4.21 ± 0.51
SNIC 06/19/87 03	1.36 ± 1.01	0.00 ± 0.00	3.12 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.05 ± 0.31	6.95 ± 1.16
SNIC 06/19/87 09	1.86 ± 1.06	0.00 ± 0.00	3.24 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.73 ± 0.34	8.78 ± 1.27
SNIC 06/19/87 13	0.35 ± 0.39	1.14 ± 0.97	0.00 ± 0.00	3.15 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	2.45 ± 0.32	7.69 ± 1.14
SNIC 06/19/87 17	0.01 ± 0.09	0.71 ± 0.40	0.00 ± 0.00	2.48 ± 0.03	0.00 ± 0.00	0.00 ± 0.00	1.17 ± 0.17	4.37 ± 0.56
SNIC 06/24/87 00	0.00 ± 0.00	1.83 ± 0.87	0.00 ± 0.00	2.92 ± 0.09	0.00 ± 0.00	0.00 ± 0.00	1.03 ± 0.22	5.78 ± 0.94
SNIC 06/24/87 03	0.04 ± 0.00	0.68 ± 0.50	0.00 ± 0.00	3.70 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	1.45 ± 0.34	5.89 ± 0.77
SNIC 06/24/87 09	0.00 ± 0.00	0.79 ± 0.61	0.00 ± 0.00	3.53 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	1.99 ± 0.34	6.31 ± 0.77
SNIC 06/24/87 13	0.00 ± 0.00	1.00 ± 0.64	0.00 ± 0.00	2.82 ± 0.09	0.00 ± 0.00	0.00 ± 0.00	1.43 ± 0.36	5.25 ± 0.79
SNIC 06/24/87 17	0.00 ± 0.00	2.07 ± 0.64	0.00 ± 0.00	2.85 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.24	5.00 ± 0.77
SNIC 06/29/87 00	0.00 ± 0.00	1.54 ± 0.13	0.00 ± 0.00	2.93 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.38 ± 0.28	4.86 ± 0.94
SNIC 06/29/87 03	0.00 ± 0.00	0.78 ± 0.59	0.00 ± 0.00	2.68 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.87 ± 0.31	4.34 ± 0.72
SNIC 06/29/87 09	0.00 ± 0.00	0.66 ± 0.59	0.00 ± 0.00	2.63 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	1.78 ± 0.36	5.07 ± 0.75
SNIC 06/29/87 13	0.00 ± 0.00	0.72 ± 0.62	0.00 ± 0.00	2.04 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	0.35 ± 0.29	3.31 ± 0.73
SNIC 06/29/87 17	0.06 ± 0.12	1.31 ± 0.57	0.00 ± 0.00	2.43 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	0.33 ± 0.21	4.16 ± 0.66
SNIC 07/13/87 00	0.21 ± 0.23	0.79 ± 0.55	0.00 ± 0.00	1.95 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	0.23 ± 0.23	2.68 ± 0.83
SNIC 07/13/87 06	0.00 ± 0.00	0.79 ± 0.23	0.00 ± 0.00	1.11 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	1.11 ± 0.23	1.11 ± 0.23

Table B-1 (continued)
Individual Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Emissions	Primary Motor Veh. SCE ± σ [kg/m ³]	Vegetative Burning	Secondary Sulfate SCE ± σ [kg/m ³]	Nitrate SCE ± σ [kg/m ³]	Secondary Construction SCE ± σ [kg/m ³]	On Combustion SCE ± σ [kg/m ³]	Marine Aerosol SCE ± σ [kg/m ³]	Calculated Mass ± σ [kg/m ³]	Measured Mass ± σ [kg/m ³]	Unadjusted Mass ± σ [kg/m ³]
SNIC 07/13/87 63	0.67 ± 0.89	0.62 ± 0.72	0.00 ± 0.00	2.10 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	0.14 ± 0.10	2.93 ± 0.77	6.48 ± 4.00	3.55 ± 4.07
SNIC 07/13/87 69	0.46 ± 0.06	0.51 ± 0.79	0.00 ± 0.00	2.59 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.32 ± 0.27	3.46 ± 0.89	6.86 ± 4.01	3.38 ± 4.11
SNIC 07/13/87 13	0.46 ± 0.82	0.39 ± 0.72	0.00 ± 0.00	2.39 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	0.14 ± 0.27	2.99 ± 0.92	7.97 ± 4.09	4.98 ± 4.17
SNIC 07/13/87 17	0.67 ± 0.07	0.32 ± 0.67	0.00 ± 0.00	1.75 ± 0.33	0.00 ± 0.00	0.00 ± 0.00	0.99 ± 0.10	3.12 ± 0.70	5.60 ± 2.31	2.48 ± 2.41
SNIC 07/14/87 60	0.50 ± 0.00	0.42 ± 0.38	0.00 ± 0.00	2.38 ± 0.06	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.16	2.87 ± 0.48	2.91 ± 3.24	0.04 ± 3.28
SNIC 07/14/87 65	0.65 ± 0.06	0.36 ± 0.56	0.00 ± 0.00	2.11 ± 0.06	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.07	2.59 ± 0.82	1.31 ± 4.00	-1.28 ± 4.05
SNIC 07/14/87 69	0.80 ± 0.00	1.23 ± 0.86	0.00 ± 0.00	2.08 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.08	3.41 ± 0.91	2.26 ± 4.22	-1.15 ± 4.32
SNIC 07/14/87 13	0.67 ± 0.06	0.52 ± 0.77	0.00 ± 0.00	1.46 ± 0.06	0.00 ± 0.00	0.00 ± 0.00	0.09 ± 0.09	2.14 ± 0.82	10.40 ± 4.08	8.26 ± 4.16
SNIC 07/14/87 17	0.67 ± 0.67	0.35 ± 0.68	0.00 ± 0.00	1.48 ± 0.03	0.00 ± 0.00	0.00 ± 0.00	0.01 ± 0.12	1.92 ± 0.64	2.83 ± 2.25	0.91 ± 2.34
SNIC 07/15/87 60	0.84 ± 0.65	0.34 ± 0.49	0.00 ± 0.00	1.56 ± 0.04	0.00 ± 0.00	0.00 ± 0.00	0.05 ± 0.05	1.99 ± 0.33	0.00 ± 3.38	0.00 ± 0.00
SNIC 07/15/87 65	0.85 ± 0.66	0.35 ± 0.57	0.00 ± 0.00	0.94 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.07	1.43 ± 0.61	0.00 ± 4.09	0.00 ± 0.00
SNIC 07/15/87 69	0.67 ± 0.09	0.60 ± 0.75	0.00 ± 0.00	0.85 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	0.08 ± 0.08	1.61 ± 0.79	0.00 ± 4.09	0.00 ± 0.00
SNIC 07/15/87 13	0.67 ± 0.08	0.61 ± 0.62	0.00 ± 0.00	1.71 ± 0.06	0.00 ± 0.00	0.00 ± 0.00	0.08 ± 0.08	2.47 ± 0.68	1.79 ± 4.02	-0.68 ± 4.06
SNIC 07/15/87 17	0.67 ± 0.57	0.33 ± 0.64	0.00 ± 0.00	0.83 ± 0.02	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.08	1.29 ± 0.67	14.81 ± 2.29	13.52 ± 2.39
SNIC 08/21/87 60	0.62 ± 0.05	0.33 ± 0.46	0.00 ± 0.00	2.32 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	0.26 ± 0.20	2.94 ± 0.35	4.96 ± 3.12	2.02 ± 3.17
SNIC 08/21/87 65	0.91 ± 0.02	0.31 ± 0.32	0.00 ± 0.00	2.80 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.12 ± 0.43	6.20 ± 4.22	3.08 ± 4.24
SNIC 08/21/87 69	0.91 ± 0.03	0.41 ± 0.41	0.00 ± 0.00	5.52 ± 0.19	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.94 ± 0.60	13.65 ± 4.17	7.71 ± 4.21
SNIC 08/21/87 13	0.68 ± 0.05	0.91 ± 0.81	0.00 ± 0.00	4.54 ± 0.15	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.24	5.54 ± 0.93	11.06 ± 4.69	5.52 ± 4.19
SNIC 08/21/87 17	0.91 ± 0.03	0.33 ± 0.63	0.00 ± 0.00	3.13 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	0.46 ± 0.18	3.93 ± 0.71	6.93 ± 2.29	3.02 ± 2.40
SNIC 08/21/87 80	0.61 ± 0.01	0.60 ± 0.00	0.00 ± 0.00	4.42 ± 0.13	0.00 ± 0.00	0.00 ± 0.00	0.03 ± 0.06	4.46 ± 0.36	7.45 ± 3.31	2.99 ± 3.33
SNIC 08/24/87 65	0.62 ± 0.01	0.60 ± 0.00	0.00 ± 0.00	4.71 ± 0.15	0.00 ± 0.00	0.00 ± 0.00	0.05 ± 0.05	4.77 ± 0.39	6.25 ± 4.26	1.48 ± 4.28
SNIC 08/24/87 69	0.21 ± 0.30	0.60 ± 0.00	0.00 ± 0.00	6.16 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	1.12 ± 0.30	7.49 ± 0.64	17.70 ± 3.64	5.61 ± 4.69
SNIC 08/24/87 13	5.24 ± 0.58	0.60 ± 0.00	0.00 ± 0.00	5.93 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	2.30 ± 0.38	13.47 ± 0.84	17.37 ± 4.41	3.90 ± 4.49
SNIC 08/24/87 17	6.62 ± 0.45	2.57 ± 0.92	0.00 ± 0.00	5.94 ± 0.40	0.00 ± 0.00	0.00 ± 0.00	4.46 ± 0.37	19.40 ± 1.26	30.89 ± 2.27	11.69 ± 2.60
SNIC 08/24/87 60	0.60 ± 0.00	5.79 ± 3.38	0.00 ± 0.00	5.96 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	0.34 ± 0.21	12.69 ± 3.64	14.80 ± 3.79	9.19 ± 3.64
SNIC 08/24/87 65	0.69 ± 0.00	1.19 ± 0.68	0.00 ± 0.00	4.00 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	2.22 ± 0.34	7.41 ± 0.85	23.30 ± 4.76	13.89 ± 4.84
SNIC 08/24/87 69	0.60 ± 0.00	2.15 ± 0.91	0.00 ± 0.00	5.61 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	1.12 ± 0.30	8.89 ± 1.07	13.20 ± 4.68	4.31 ± 4.80
SNIC 08/24/87 13	0.60 ± 0.00	1.60 ± 0.79	0.00 ± 0.00	3.13 ± 0.10	0.00 ± 0.00	0.00 ± 0.00	1.50 ± 0.28	15.42 ± 0.90	15.42 ± 4.21	9.19 ± 4.31
SNIC 08/24/87 17	0.60 ± 0.00	0.66 ± 0.74	0.00 ± 0.00	3.39 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.33 ± 0.21	4.57 ± 0.82	7.47 ± 2.33	2.90 ± 2.47
SNIC 09/02/87 60	0.60 ± 0.00	0.27 ± 0.41	0.00 ± 0.00	2.98 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	1.56 ± 0.18	5.94 ± 0.51	5.94 ± 3.09	1.14 ± 3.13

Table B-1 (continued)
Individual Source Contributions to PM_{1.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/Time ^b	Primary Geological SCE ± σ (µg/m ³)	Secondary Vegetative Burning SCE ± σ (µg/m ³)	Secondary Sulfate SCE ± σ (µg/m ³)	Secondary (Limestone) SCE ± σ (µg/m ³)	Oil Combustion SCE ± σ (µg/m ³)	Marine Aerosol SCE ± σ (µg/m ³)	Calculated Mass ± σ (µg/m ³)	Measured Mass ± σ (µg/m ³)	Unexplained Mass ± σ (µg/m ³)
SNIC	06/02/87 05	0.50 ± 0.30	0.73 ± 0.43	0.60 ± 0.00	4.23 ± 0.13	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.10	4.52 ± 0.57	4.09 ± 4.23
SNIC	06/02/87 09	0.50 ± 0.30	1.10 ± 0.91	0.50 ± 0.00	3.64 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	2.25 ± 0.30	7.97 ± 1.01	7.58 ± 4.01
SNIC	06/02/87 13	0.50 ± 0.30	0.57 ± 0.57	0.60 ± 0.00	3.54 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	2.06 ± 0.37	6.17 ± 0.83	5.92 ± 4.20
SNIC	06/02/87 17	0.50 ± 0.30	0.56 ± 0.49	0.60 ± 0.00	2.94 ± 0.06	0.00 ± 0.00	0.00 ± 0.00	0.59 ± 0.15	4.40 ± 0.73	4.12 ± 2.29
SNIC	06/03/87 00	0.50 ± 0.30	0.30 ± 0.29	0.60 ± 0.00	2.65 ± 0.05	0.00 ± 0.00	0.00 ± 0.00	0.04 ± 0.05	2.39 ± 0.37	0.57 ± 3.24
SNIC	06/03/87 04	0.50 ± 0.30	0.26 ± 0.35	0.50 ± 0.00	1.52 ± 0.03	0.00 ± 0.00	0.00 ± 0.00	0.03 ± 0.07	1.82 ± 0.43	0.00 ± 0.00
SNIC	06/03/87 08	0.50 ± 0.30	0.71 ± 0.68	0.60 ± 0.00	6.32 ± 0.25	0.00 ± 0.00	0.00 ± 0.00	0.19 ± 0.31	7.23 ± 0.69	4.66 ± 4.09
SNIC	06/03/87 09	0.50 ± 0.30	0.43 ± 0.34	0.60 ± 0.00	5.08 ± 0.17	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.17	5.57 ± 0.73	3.18 ± 4.09
SNIC	06/03/87 13	0.50 ± 0.30	0.43 ± 0.37	0.60 ± 0.00	1.95 ± 0.04	0.00 ± 0.00	0.00 ± 0.00	0.94 ± 0.15	3.32 ± 0.62	7.38 ± 2.32
SNIC	06/03/87 17	0.50 ± 0.30								

See Table 3-2 for site names.

Sampling periods for the summer campaign are: 0000 - 0500, 0500 - 0900, 0900 - 1300, 1300 - 1700, and 1700 - 2400 PST, between 6/19/87 and 9/3/87.

Sampling periods for the fall campaign are: 0000 - 0600, 0600 - 1000, 1000 - 1400, 1400 - 1800, 1800 - 2400 PST, between 11/1/87 and 12/11/87.

Table B-2
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source	Primary Mater Vch.	Vegetative Emissions	Secondary Sulfate	Secondary Nitrate	Construction (Inches)	ON Combustion	Marine	Calculated Mass ± σ (kg/m ³)	Measured Mass ± σ (kg/m ³)	Unexplained Mass ± σ (kg/m ³)	
Site ^a	Date/Time ^b										
ANAH	06/19/87	60	3.89 ± 0.45	1.12 ± 0.76	0.00 ± 0.00	5.43 ± 0.23	7.15 ± 0.95	0.00 ± 0.00	12.02 ± 0.88	29.60 ± 1.67	50.94 ± 6.69
ANAH	06/19/87	65	9.22 ± 0.20	3.60 ± 1.52	0.00 ± 0.00	8.26 ± 0.40	6.25 ± 0.82	0.00 ± 0.00	8.82 ± 0.83	35.54 ± 2.22	22.54 ± 7.35
ANAH	06/19/87	69	15.24 ± 0.59	4.82 ± 1.77	0.00 ± 0.00	5.85 ± 0.32	5.99 ± 0.92	0.00 ± 0.00	7.08 ± 0.87	38.20 ± 2.43	53.95 ± 7.67
ANAH	06/19/87	13	7.62 ± 0.10	4.65 ± 2.67	0.00 ± 0.00	4.32 ± 0.27	4.18 ± 0.85	0.00 ± 0.00	6.97 ± 0.70	27.74 ± 1.69	42.14 ± 7.24
ANAH	06/19/87	17	7.02 ± 0.52	3.48 ± 1.24	0.00 ± 0.00	4.94 ± 0.19	4.18 ± 0.77	0.00 ± 0.00	9.07 ± 0.65	28.69 ± 1.75	43.31 ± 4.12
ANAH	06/24/87	60	9.94 ± 0.74	5.88 ± 1.91	0.00 ± 0.00	13.86 ± 1.11	10.17 ± 1.36	0.00 ± 0.00	8.14 ± 0.89	46.99 ± 2.84	62.74 ± 5.59
ANAH	06/24/87	65	22.69 ± 1.21	9.92 ± 2.90	0.00 ± 0.00	15.29 ± 1.63	10.46 ± 1.80	0.00 ± 0.00	8.93 ± 1.10	66.69 ± 4.01	84.87 ± 7.19
ANAH	06/24/87	69	14.18 ± 0.63	7.12 ± 2.26	0.00 ± 0.00	16.52 ± 0.77	2.09 ± 0.90	0.00 ± 0.00	9.88 ± 1.08	43.79 ± 2.95	54.25 ± 7.11
ANAH	06/24/87	13	15.59 ± 0.86	7.45 ± 2.34	0.00 ± 0.00	8.84 ± 0.58	3.68 ± 0.85	0.00 ± 0.00	6.30 ± 0.77	41.85 ± 2.87	53.31 ± 7.17
ANAH	06/24/87	17	11.90 ± 0.67	5.70 ± 1.62	0.00 ± 0.00	10.09 ± 0.51	1.83 ± 0.61	0.00 ± 0.00	9.81 ± 0.79	39.33 ± 2.15	54.53 ± 4.02
ANAH	06/25/87	60	8.51 ± 0.63	6.77 ± 2.54	0.00 ± 0.00	11.98 ± 0.80	6.86 ± 1.31	0.00 ± 0.00	9.43 ± 0.96	43.55 ± 3.23	57.76 ± 5.78
ANAH	06/25/87	69	13.21 ± 0.86	10.92 ± 3.70	0.00 ± 0.00	9.60 ± 0.71	3.48 ± 0.97	0.00 ± 0.00	7.45 ± 0.95	44.66 ± 4.15	57.72 ± 7.57
ANAH	06/25/87	13	8.32 ± 0.74	7.77 ± 3.00	0.00 ± 0.00	6.01 ± 0.36	2.52 ± 0.86	0.00 ± 0.00	4.11 ± 0.78	24.73 ± 3.37	38.27 ± 7.01
ANAH	06/25/87	17	4.93 ± 0.42	7.13 ± 1.97	0.00 ± 0.00	6.33 ± 0.26	1.33 ± 0.63	0.00 ± 0.00	5.36 ± 0.60	25.10 ± 2.26	34.08 ± 3.98
ANAH	07/13/87	60	2.12 ± 0.26	7.27 ± 1.96	0.00 ± 0.00	3.01 ± 0.15	0.72 ± 0.58	0.00 ± 0.00	3.67 ± 0.51	16.80 ± 2.21	21.95 ± 4.66
ANAH	07/13/87	65	9.31 ± 0.74	13.86 ± 4.08	0.00 ± 0.00	5.45 ± 0.49	1.69 ± 1.33	0.00 ± 0.00	3.82 ± 0.71	34.62 ± 4.49	46.46 ± 7.69
ANAH	07/13/87	69	10.46 ± 0.80	13.51 ± 3.79	0.00 ± 0.00	6.35 ± 0.49	0.00 ± 0.00	0.00 ± 0.00	4.09 ± 0.82	34.41 ± 4.04	45.94 ± 7.30
ANAH	07/13/87	13	15.53 ± 0.92	16.56 ± 4.44	0.00 ± 0.00	8.87 ± 0.79	0.00 ± 0.00	0.00 ± 0.00	3.75 ± 0.73	44.73 ± 4.70	61.31 ± 7.15
ANAH	07/13/87	17	7.84 ± 0.47	7.91 ± 2.29	0.00 ± 0.00	5.31 ± 0.24	0.00 ± 0.00	0.00 ± 0.00	5.75 ± 0.62	26.81 ± 2.48	36.07 ± 4.04
ANAH	07/14/87	60	4.21 ± 0.48	6.63 ± 1.97	0.00 ± 0.00	8.42 ± 0.46	3.25 ± 0.64	0.00 ± 0.00	5.13 ± 0.66	27.61 ± 2.35	37.69 ± 5.65
ANAH	07/14/87	65	11.78 ± 0.78	6.76 ± 3.13	0.00 ± 0.00	15.41 ± 1.18	0.00 ± 0.00	0.00 ± 0.00	6.07 ± 0.94	40.02 ± 3.56	51.22 ± 7.17
ANAH	07/14/87	69	11.34 ± 0.70	10.47 ± 3.61	0.00 ± 0.00	14.10 ± 1.16	0.00 ± 0.00	0.00 ± 0.00	5.34 ± 1.02	41.25 ± 4.01	50.55 ± 7.30
ANAH	07/14/87	13	11.08 ± 0.82	13.67 ± 3.79	0.00 ± 0.00	16.31 ± 1.48	0.00 ± 0.00	0.00 ± 0.00	3.05 ± 0.93	44.11 ± 4.19	59.33 ± 7.31
ANAH	07/14/87	17	6.36 ± 0.43	5.41 ± 1.87	0.00 ± 0.00	9.92 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	6.10 ± 0.12	14.08 ± 1.96	22.21 ± 7.18
ANAH	07/15/87	13	3.58 ± 0.52	5.14 ± 2.37	0.00 ± 0.00	3.68 ± 0.24	0.00 ± 0.00	0.00 ± 0.00	6.67 ± 0.57	13.07 ± 2.36	20.47 ± 7.26
ANAH	07/15/87	60	3.49 ± 0.60	4.16 ± 1.50	0.00 ± 0.00	9.43 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	3.76 ± 0.71	20.84 ± 1.91	29.84 ± 5.67
ANAH	07/15/87	65	35.15 ± 1.30	6.13 ± 2.53	0.00 ± 0.00	8.93 ± 0.62	1.15 ± 1.10	0.00 ± 0.00	2.89 ± 0.69	56.26 ± 3.25	60.35 ± 7.41
ANAH	07/15/87	69	4.40 ± 0.50	3.94 ± 1.60	0.00 ± 0.00	5.04 ± 0.28	0.39 ± 0.75	0.00 ± 0.00	0.10 ± 0.00	14.08 ± 1.96	22.21 ± 7.18
ANAH	07/15/87	13	3.58 ± 0.52	5.14 ± 2.37	0.00 ± 0.00	3.68 ± 0.24	0.00 ± 0.00	0.00 ± 0.00	6.67 ± 0.57	13.07 ± 2.36	20.47 ± 7.26
ANAH	07/15/87	17	3.55 ± 0.42	6.01 ± 1.81	0.00 ± 0.00	3.56 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	3.84 ± 0.48	13.06 ± 1.97	18.80 ± 4.80
ANAH	08/27/87	00	7.85 ± 0.56	9.84 ± 2.91	0.00 ± 0.00	8.68 ± 0.59	8.90 ± 1.41	0.00 ± 0.00	0.00 ± 0.00	7.07 ± 0.86	4.09 ± 8.09
ANAH	08/27/87	05								52.99 ± 5.41	10.65 ± 6.44

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/Time ^b	Primary Motor Veh. Exhaust	Vegetative Burning	Secondary Sulfate	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Secondary Construction (Limestone) SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)	
ANAH	06/21/87	05	19.37 ± 0.30	17.57 ± 4.81	0.00 ± 0.00	8.17 ± 0.93	11.11 ± 1.92	0.00 ± 0.00	0.00 ± 0.00	6.32 ± 1.00	62.52 ± 5.47	13.33 ± 9.06	
ANAH	06/21/87	09	20.69 ± 1.65	17.30 ± 4.88	0.00 ± 0.00	11.19 ± 1.10	0.23 ± 1.10	0.00 ± 0.00	0.00 ± 0.00	8.07 ± 1.23	57.56 ± 5.38	73.83 ± 7.54	
ANAH	06/21/87	13	24.94 ± 1.28	10.59 ± 3.62	0.00 ± 0.00	9.42 ± 0.72	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.02 ± 1.04	51.80 ± 4.09	16.27 ± 9.26	
ANAH	06/21/87	17	11.98 ± 0.55	7.10 ± 1.92	0.00 ± 0.00	8.91 ± 0.51	1.61 ± 0.94	0.00 ± 0.00	0.00 ± 0.00	9.64 ± 0.79	39.23 ± 2.46	13.62 ± 4.90	
ANAH	06/21/87	21	5.57 ± 0.53	7.31 ± 2.48	0.00 ± 0.00	10.07 ± 0.64	3.34 ± 0.96	0.00 ± 0.00	0.00 ± 0.00	6.55 ± 0.84	45.26 ± 5.71	12.38 ± 6.44	
ANAH	06/24/87	00	11.78 ± 0.79	12.24 ± 3.69	0.00 ± 0.00	14.35 ± 1.32	4.99 ± 1.45	0.00 ± 0.00	0.00 ± 0.00	8.12 ± 1.07	51.48 ± 4.36	15.70 ± 8.49	
ANAH	06/24/87	05	11.78 ± 0.79	12.24 ± 3.69	0.00 ± 0.00	14.35 ± 1.32	4.99 ± 1.45	0.00 ± 0.00	0.00 ± 0.00	8.12 ± 1.07	51.48 ± 4.36	15.70 ± 8.49	
ANAH	06/24/87	13	14.38 ± 0.84	12.60 ± 3.37	0.00 ± 0.00	19.93 ± 2.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.55 ± 0.95	52.46 ± 3.92	15.49 ± 7.32	
ANAH	06/24/87	17	11.63 ± 0.53	7.74 ± 2.30	0.00 ± 0.00	11.63 ± 0.79	5.42 ± 1.20	0.00 ± 0.00	0.00 ± 0.00	7.13 ± 0.71	43.55 ± 3.06	18.60 ± 5.07	
ANAH	06/24/87	21	11.16 ± 0.63	11.44 ± 3.32	0.00 ± 0.00	15.86 ± 2.38	8.70 ± 1.82	0.00 ± 0.00	0.00 ± 0.00	7.91 ± 0.94	53.10 ± 4.26	22.70 ± 6.82	
ANAH	06/29/87	00	15.52 ± 0.84	11.30 ± 3.23	0.00 ± 0.00	21.59 ± 2.43	5.76 ± 1.72	0.00 ± 0.00	0.00 ± 0.00	10.99 ± 1.34	63.36 ± 4.31	18.54 ± 8.76	
ANAH	06/29/87	05	29.32 ± 1.82	29.25 ± 6.45	0.00 ± 0.00	12.86 ± 0.84	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.34 ± 0.96	32.03 ± 2.49	38.42 ± 7.14	
ANAH	06/29/87	13	8.18 ± 0.66	5.64 ± 1.96	0.00 ± 0.00	10.14 ± 0.84	0.66 ± 1.15	0.00 ± 0.00	0.00 ± 0.00	5.30 ± 0.61	32.58 ± 2.93	40.12 ± 4.03	
ANAH	06/29/87	17	6.72 ± 0.49	7.76 ± 2.30	0.00 ± 0.00	9.39 ± 1.07	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.30 ± 0.73	45.08 ± 3.46	54.16 ± 5.58	
ANAH	09/02/87	00	15.76 ± 1.63	11.58 ± 3.02	0.00 ± 0.00	6.45 ± 0.54	3.96 ± 0.86	0.00 ± 0.00	0.00 ± 0.00	11.10 ± 1.22	73.56 ± 7.69	86.77 ± 7.42	
ANAH	09/02/87	05	29.07 ± 1.65	22.82 ± 6.03	0.00 ± 0.00	9.21 ± 1.30	2.51 ± 1.16	0.00 ± 0.00	0.00 ± 0.00	9.72 ± 1.27	73.34 ± 6.60	95.31 ± 7.21	
ANAH	09/02/87	13	10.59 ± 3.83	10.59 ± 3.83	0.00 ± 0.00	10.41 ± 0.90	12.18 ± 1.40	0.00 ± 0.00	0.00 ± 0.00	8.81 ± 1.14	63.58 ± 5.01	82.63 ± 7.19	
ANAH	09/02/87	17	30.40 ± 1.48	14.98 ± 4.31	0.00 ± 0.00	9.39 ± 1.07	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.83 ± 0.70	32.94 ± 2.26	10.85 ± 4.65	
ANAH	09/02/87	21	9.64 ± 0.53	3.41 ± 1.96	0.00 ± 0.00	6.95 ± 0.32	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.26 ± 0.70	35.48 ± 2.66	52.73 ± 5.27	
ANAH	09/03/87	00	6.44 ± 0.56	6.12 ± 2.14	0.00 ± 0.00	7.62 ± 0.41	8.04 ± 1.10	0.00 ± 0.00	0.00 ± 0.00	5.17 ± 0.49	20.36 ± 1.19	15.27 ± 9.49	
ANAH	09/03/87	05	16.72 ± 1.00	10.59 ± 3.83	0.00 ± 0.00	10.41 ± 0.90	12.18 ± 1.40	0.00 ± 0.00	0.00 ± 0.00	8.15 ± 1.19	58.26 ± 4.63	73.53 ± 8.26	
ANAH	09/03/87	13	30.40 ± 1.48	14.98 ± 4.31	0.00 ± 0.00	9.39 ± 1.07	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.56 ± 1.06	54.60 ± 4.06	69.32 ± 7.27	
ANAH	09/03/87	17	24.96 ± 1.11	10.72 ± 3.61	0.00 ± 0.00	11.36 ± 0.91	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	32.00 ± 3.12	43.79 ± 4.06	
ANAH	09/03/87	21	6.63 ± 1.19	5.12 ± 2.73	0.00 ± 0.00	7.57 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.74 ± 0.82	17.25 ± 5.90	21.91 ± 9.77	
ANAH	09/03/87	13	13.58 ± 1.01	6.44 ± 0.56	2.27 ± 0.77	0.00 ± 0.00	5.64 ± 0.19	1.32 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	2.43 ± 0.32	31.56 ± 8.87	19.05 ± 8.76
ANAH	09/03/87	17	5.97 ± 0.38	7.54 ± 2.29	0.00 ± 0.00	0.47 ± 0.98	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.18 ± 0.19	10.82 ± 2.41	14.72 ± 8.33	
ANAH	09/03/87	21	2.63 ± 0.61	45.21 ± 7.94	0.00 ± 0.00	0.34 ± 0.25	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.32 ± 0.24	18.52 ± 4.89	4.87 ± 8.62	
ANAH	11/11/87	00	16.37 ± 1.02	45.21 ± 7.94	0.00 ± 0.00	11.22 ± 4.71	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.24 ± 2.75	6.37 ± 7.48	-3.87 ± 7.97	
ANAH	11/11/87	05	13.56 ± 1.01	35.44 ± 6.35	0.00 ± 0.00	0.25 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.49 ± 0.11	7.24 ± 4.01	7.24 ± 11.55	
ANAH	11/11/87	10	2.06 ± 0.88	6.94 ± 2.57	0.00 ± 0.00	1.30 ± 0.74	3.69 ± 1.89	0.00 ± 0.00	0.00 ± 0.00	0.17 ± 0.19	3.77 ± 5.51	4.83 ± 10.22	
ANAH	11/11/87	14	6.95 ± 1.00	23.18 ± 0.56	0.00 ± 0.00	0.47 ± 0.98	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.85 ± 0.34	80.19 ± 8.93	50.02 ± 4.98	
ANAH	11/11/87	18	16.37 ± 1.02	45.21 ± 7.94	0.00 ± 0.00	15.11 ± 3.75	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.72 ± 0.22	20.25 ± 7.30	66.42 ± 4.89	
ANAH	11/11/87	00	13.76 ± 1.17	34.31 ± 6.63	0.00 ± 0.00	0.13 ± 0.20	17.35 ± 3.33	0.00 ± 0.00	0.00 ± 0.00	0.05 ± 0.31	69.61 ± 7.53	79.14 ± 7.34	
ANAH	11/11/87	06	16.90 ± 1.17	2.56 ± 0.48	0.00 ± 0.00	10.10 ± 1.75	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.99 ± 0.43	40.24 ± 5.30	50.98 ± 7.36	
ANAH	11/11/87	10	7.56 ± 0.94	17.03 ± 4.83	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.74 ± 9.07		

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^c	Date/Time ^d	Primary Geological SCE ± σ ^e (μg/m ³)	Motor Veh. Exhaust SCE ± σ ^e (μg/m ³)	Vegetative Burning SCE ± σ ^e (μg/m ³)	Secondary Sulfate SCE ± σ ^e (μg/m ³)	Secondary Nitrate (Limestone) SCE ± σ ^e (μg/m ³)	Construction SCE ± σ ^e (μg/m ³)	Oil Combustion SCE ± σ ^e (μg/m ³)	Marine SCE ± σ ^e (μg/m ³)	Aerosol SCE ± σ ^e (μg/m ³)	Calculated Mass ± σ ^e (μg/m ³)	Measured Mass ± σ ^e (μg/m ³)	Unexplained Mass ± σ ^e (μg/m ³)
ANAH	11/1/87	14	9.16 ± 0.99	14.43 ± 4.30	0.00 ± 0.00	2.57 ± 0.41	14.93 ± 1.82	0.00 ± 0.00	0.00 ± 0.00	4.07 ± 0.46	45.17 ± 5.03	54.53 ± 7.52	9.36 ± 9.05
ANAH	11/1/87	18	10.42 ± 0.99	20.38 ± 5.76	0.00 ± 0.00	2.85 ± 0.68	26.75 ± 2.95	0.00 ± 0.00	0.00 ± 0.00	5.29 ± 0.52	76.19 ± 6.61	79.22 ± 4.89	3.03 ± 8.22
ANAH	11/1/87	00	6.81 ± 0.70	18.26 ± 4.11	0.00 ± 0.00	6.34 ± 0.63	40.55 ± 3.18	0.00 ± 0.00	0.00 ± 0.00	6.10 ± 0.58	78.07 ± 5.34	89.39 ± 4.90	11.32 ± 7.25
ANAH	11/1/87	06	9.45 ± 0.98	16.16 ± 4.16	0.00 ± 0.00	5.29 ± 0.58	34.56 ± 2.75	0.00 ± 0.00	0.00 ± 0.00	3.02 ± 0.39	68.07 ± 5.15	75.56 ± 7.27	7.49 ± 8.91
ANAH	11/1/87	10	7.95 ± 1.35	14.62 ± 4.23	0.00 ± 0.00	7.01 ± 0.67	8.03 ± 1.73	0.00 ± 0.00	0.00 ± 0.00	5.33 ± 0.54	42.96 ± 4.93	51.42 ± 7.48	14.46 ± 8.96
ANAH	11/1/87	14	7.87 ± 0.97	12.39 ± 3.41	0.00 ± 0.00	3.62 ± 0.33	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.40 ± 0.79	33.29 ± 3.68	32.99 ± 7.50	-0.30 ± 8.35
ANAH	11/1/87	18	2.36 ± 0.62	11.89 ± 2.95	0.00 ± 0.00	4.96 ± 0.33	7.25 ± 1.23	0.00 ± 0.00	0.00 ± 0.00	5.02 ± 0.38	31.48 ± 3.33	35.77 ± 4.90	4.29 ± 5.92
ANAH	12/0/87	00	16.62 ± 0.90	47.44 ± 9.66	0.00 ± 0.00	10.26 ± 3.25	127.53 ± 9.44	0.00 ± 0.00	0.00 ± 0.00	2.24 ± 0.33	204.69 ± 13.67	229.58 ± 4.95	24.89 ± 14.34
ANAH	12/0/87	06	30.17 ± 4.18	81.00 ± 15.33	0.00 ± 0.00	5.95 ± 6.32	112.04 ± 10.35	0.00 ± 0.00	0.00 ± 0.00	2.99 ± 0.47	232.15 ± 19.54	238.89 ± 7.69	6.74 ± 21.00
ANAH	12/0/87	10	22.91 ± 2.16	36.00 ± 8.53	0.00 ± 0.00	8.62 ± 1.95	88.05 ± 6.94	0.00 ± 0.00	0.00 ± 0.00	1.93 ± 0.35	157.50 ± 11.31	187.31 ± 7.57	29.81 ± 13.61
ANAH	12/0/87	14	18.84 ± 2.12	34.73 ± 8.09	0.00 ± 0.00	12.87 ± 2.45	75.88 ± 5.61	0.00 ± 0.00	0.00 ± 0.00	7.34 ± 0.74	169.45 ± 10.23	184.89 ± 7.45	35.44 ± 12.66
ANAH	12/0/87	18	13.94 ± 0.93	41.02 ± 7.75	0.00 ± 0.00	10.70 ± 2.16	74.03 ± 5.76	0.00 ± 0.00	0.00 ± 0.00	4.44 ± 0.52	144.21 ± 9.84	175.44 ± 5.02	31.23 ± 11.05
ANAH	12/1/87	00	14.20 ± 0.97	57.05 ± 9.82	0.00 ± 0.00	0.34 ± 2.43	36.68 ± 5.20	0.00 ± 0.00	0.00 ± 0.00	2.14 ± 0.32	110.41 ± 11.27	117.95 ± 4.77	7.54 ± 12.24
ANAH	12/1/87	06	17.61 ± 1.23	54.63 ± 9.34	0.00 ± 0.00	0.00 ± 0.00	24.79 ± 5.10	0.00 ± 0.00	0.00 ± 0.00	1.20 ± 0.37	98.24 ± 10.72	96.79 ± 7.37	-1.45 ± 13.12
ANAH	12/1/87	10	8.99 ± 0.98	19.81 ± 5.09	0.00 ± 0.00	1.18 ± 0.51	32.61 ± 2.88	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 0.24	63.18 ± 5.99	73.96 ± 7.47	10.78 ± 9.58
ANAH	12/1/87	14	20.16 ± 1.36	45.56 ± 8.56	0.00 ± 0.00	2.70 ± 1.60	57.97 ± 5.19	0.00 ± 0.00	0.00 ± 0.00	6.02 ± 0.68	132.41 ± 10.22	150.70 ± 7.42	18.29 ± 12.63
ANAH	12/1/87	18	25.87 ± 1.35	76.15 ± 13.00	0.00 ± 0.00	0.87 ± 4.31	55.54 ± 7.09	0.00 ± 0.00	0.00 ± 0.00	3.41 ± 0.43	161.84 ± 13.02	176.38 ± 5.00	14.74 ± 15.83
ANAH	12/1/87	00	11.65 ± 0.87	50.22 ± 8.96	0.00 ± 0.00	0.02 ± 2.01	30.74 ± 4.63	0.00 ± 0.00	0.00 ± 0.00	1.61 ± 0.27	94.24 ± 10.22	93.16 ± 4.91	-1.06 ± 11.34
ANAH	12/1/87	06	19.82 ± 1.20	71.30 ± 12.35	0.00 ± 0.00	1.20 ± 0.15	38.96 ± 7.19	0.00 ± 0.00	0.00 ± 0.00	1.29 ± 0.43	132.57 ± 14.36	141.24 ± 7.47	8.67 ± 16.19
ANAH	12/1/87	10	14.25 ± 1.07	36.34 ± 7.99	0.00 ± 0.00	5.34 ± 1.89	74.18 ± 5.33	0.00 ± 0.00	0.00 ± 0.00	1.71 ± 0.34	131.82 ± 10.34	154.38 ± 7.51	22.56 ± 12.78
ANAH	12/1/87	14	12.78 ± 1.04	26.36 ± 6.14	0.00 ± 0.00	7.56 ± 1.31	47.71 ± 4.06	0.00 ± 0.00	0.00 ± 0.00	3.27 ± 0.44	97.67 ± 7.35	113.74 ± 7.52	16.07 ± 10.66
ANAH	12/1/87	18	13.74 ± 1.36	78.12 ± 12.81	0.00 ± 0.00	5.15 ± 3.85	48.66 ± 6.45	0.00 ± 0.00	0.00 ± 0.00	1.99 ± 0.36	149.66 ± 14.56	160.86 ± 6.04	11.30 ± 15.76
AZUS	06/19/87	00	31.03 ± 1.56	22.73 ± 5.27	0.00 ± 0.00	3.42 ± 0.64	5.92 ± 0.78	0.00 ± 0.00	0.00 ± 0.00	8.21 ± 0.77	71.31 ± 5.67	80.18 ± 5.23	8.87 ± 7.71
AZUS	06/19/87	05	34.81 ± 1.72	22.87 ± 5.47	0.00 ± 0.00	6.81 ± 0.78	8.89 ± 2.11	0.00 ± 0.00	0.00 ± 0.00	9.87 ± 0.99	83.25 ± 6.27	104.28 ± 7.01	19.03 ± 9.40
AZUS	06/19/87	09	44.03 ± 1.73	19.32 ± 4.50	0.00 ± 0.00	3.07 ± 0.88	4.33 ± 0.97	0.00 ± 0.00	0.00 ± 0.00	8.65 ± 1.15	83.40 ± 5.16	101.61 ± 6.51	18.21 ± 8.31
AZUS	06/19/87	13	42.21 ± 1.79	16.00 ± 4.04	0.00 ± 0.00	6.26 ± 0.88	2.26 ± 1.06	0.00 ± 0.00	0.00 ± 0.00	11.30 ± 1.34	85.04 ± 4.86	108.92 ± 7.30	23.88 ± 8.77
AZUS	06/19/87	17	22.18 ± 1.09	13.91 ± 3.77	0.00 ± 0.00	6.31 ± 0.51	6.48 ± 1.60	0.00 ± 0.00	0.00 ± 0.00	11.79 ± 0.89	60.67 ± 4.41	76.29 ± 3.72	15.62 ± 5.77
AZUS	06/20/87	00	13.41 ± 0.69	9.01 ± 2.44	0.00 ± 0.00	9.82 ± 0.76	17.00 ± 1.60	0.00 ± 0.00	0.00 ± 0.00	5.70 ± 0.82	54.95 ± 3.24	71.92 ± 5.36	16.97 ± 6.26
AZUS	06/20/87	05	52.80 ± 1.83	12.92 ± 6.70	0.00 ± 0.00	15.73 ± 2.31	15.73 ± 2.29	0.00 ± 0.00	0.00 ± 0.00	8.37 ± 1.20	107.53 ± 7.59	129.28 ± 6.93	21.75 ± 10.28
AZUS	06/20/87	09	40.39 ± 1.60	12.41 ± 7.18	0.00 ± 0.00	21.57 ± 4.27	4.62 ± 2.26	0.00 ± 0.00	0.00 ± 0.00	10.59 ± 1.28	95.58 ± 8.08	140.85 ± 6.89	45.27 ± 10.62

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source*	Primary Material Type	Vegetative Burning	Secondary Sulfate	Secondary Nitrate	Construction (Limestone)	Oil Combustion	Aerosol	Marine	Measured		Unexplained Mass ± σ (μg/m ³)
									SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	
AZUS 06/2/87	13	51.96 ± 1.81	11.59 ± 5.74	0.00 ± 0.00	30.99 ± 4.63	0.00 ± 0.00	0.00 ± 0.00	9.55 ± 1.17	104.08 ± 6.54	159.12 ± 7.21	55.04 ± 9.73
AZUS 06/2/87	17	18.89 ± 0.97	13.36 ± 3.40	0.00 ± 0.00	16.16 ± 1.54	10.67 ± 1.68	0.00 ± 0.00	6.90 ± 0.69	65.12 ± 4.18	86.98 ± 3.84	21.86 ± 5.68
AZUS 06/2/87	69	18.29 ± 1.12	13.47 ± 3.49	0.00 ± 0.00	18.13 ± 2.16	23.25 ± 2.26	0.00 ± 0.00	5.27 ± 0.82	78.41 ± 4.95	97.86 ± 5.49	19.43 ± 7.39
AZUS 06/2/87	65	49.21 ± 1.83	18.61 ± 4.47	0.00 ± 0.00	21.41 ± 3.39	26.21 ± 2.92	0.00 ± 0.00	6.98 ± 1.13	121.88 ± 6.07	142.21 ± 6.77	20.33 ± 9.09
AZUS 06/2/87	69	36.46 ± 2.11	25.67 ± 6.29	0.00 ± 0.00	22.15 ± 3.74	10.07 ± 3.14	0.00 ± 0.00	6.07 ± 1.14	114.44 ± 7.69	153.91 ± 6.98	39.47 ± 10.39
AZUS 06/2/87	13	42.78 ± 1.75	17.77 ± 4.36	0.00 ± 0.00	17.04 ± 2.00	0.00 ± 0.00	0.00 ± 0.00	7.20 ± 1.04	84.79 ± 5.05	121.03 ± 6.84	36.24 ± 8.50
AZUS 06/2/87	17	18.80 ± 1.04	16.19 ± 3.96	0.00 ± 0.00	14.46 ± 1.48	12.79 ± 1.86	0.00 ± 0.00	3.66 ± 0.59	65.91 ± 4.72	81.08 ± 3.91	15.17 ± 6.13
AZUS 07/1/87	69	33.19 ± 1.30	11.44 ± 3.03	0.00 ± 0.00	4.78 ± 0.35	1.11 ± 1.22	0.00 ± 0.00	3.90 ± 0.47	54.42 ± 3.60	55.82 ± 5.38	1.40 ± 6.47
AZUS 07/1/87	65	62.69 ± 2.19	21.86 ± 5.35	0.00 ± 0.00	3.59 ± 0.79	4.89 ± 2.35	0.00 ± 0.00	4.88 ± 0.78	97.91 ± 6.35	112.81 ± 6.98	14.92 ± 9.44
AZUS 07/1/87	69	39.80 ± 1.81	21.72 ± 5.27	0.00 ± 0.00	6.33 ± 0.94	2.73 ± 0.83	0.00 ± 0.00	2.25 ± 0.70	72.07 ± 5.78	97.64 ± 7.06	25.57 ± 9.12
AZUS 07/1/87	13	44.37 ± 1.94	22.32 ± 5.34	0.00 ± 0.00	7.16 ± 1.08	1.93 ± 0.89	0.00 ± 0.00	2.63 ± 0.76	77.49 ± 5.91	98.34 ± 7.70	20.85 ± 9.71
AZUS 07/1/87	17	11.24 ± 0.52	6.66 ± 1.79	0.00 ± 0.00	4.10 ± 0.20	1.50 ± 0.88	0.00 ± 0.00	3.36 ± 0.37	26.86 ± 2.15	35.81 ± 3.83	8.95 ± 4.39
AZUS 07/1/87	60	11.04 ± 0.89	9.71 ± 2.62	0.00 ± 0.00	4.04 ± 0.28	2.46 ± 1.24	0.00 ± 0.00	4.47 ± 0.68	31.71 ± 3.16	35.32 ± 5.54	3.61 ± 6.38
AZUS 07/1/87	65	44.03 ± 1.90	20.44 ± 5.19	0.00 ± 0.00	12.19 ± 1.46	5.23 ± 2.25	0.00 ± 0.00	7.96 ± 1.03	91.86 ± 6.20	103.17 ± 7.18	11.31 ± 9.49
AZUS 07/1/87	69	42.48 ± 1.75	11.53 ± 4.31	0.00 ± 0.00	15.31 ± 1.52	0.00 ± 0.00	0.00 ± 0.00	5.72 ± 1.07	81.10 ± 4.94	108.41 ± 7.08	27.31 ± 8.63
AZUS 07/1/87	13	37.55 ± 1.54	27.03 ± 5.92	0.00 ± 0.00	18.92 ± 1.56	0.00 ± 0.00	0.00 ± 0.00	2.94 ± 0.76	86.44 ± 6.34	117.28 ± 1.27	30.84 ± 9.65
AZUS 07/1/87	17	13.44 ± 0.83	10.25 ± 2.61	0.00 ± 0.00	7.76 ± 0.54	6.16 ± 1.29	0.00 ± 0.00	2.42 ± 0.47	40.04 ± 3.16	52.35 ± 3.89	12.31 ± 5.01
AZUS 07/1/87	60	16.94 ± 1.62	10.92 ± 2.89	0.00 ± 0.00	13.56 ± 1.26	10.59 ± 1.68	0.00 ± 0.00	3.45 ± 0.69	55.48 ± 3.75	65.82 ± 5.55	10.34 ± 6.70
AZUS 07/1/87	65	44.63 ± 1.89	21.53 ± 5.36	0.00 ± 0.00	15.34 ± 1.92	11.02 ± 2.44	0.00 ± 0.00	5.05 ± 0.93	97.56 ± 6.60	113.01 ± 7.11	15.45 ± 9.70
AZUS 07/1/87	69	39.93 ± 1.81	20.59 ± 5.77	0.00 ± 0.00	17.68 ± 2.29	3.15 ± 2.23	0.00 ± 0.00	5.21 ± 0.87	86.57 ± 6.70	105.21 ± 7.01	18.70 ± 9.70
AZUS 07/1/87	13	32.93 ± 1.67	19.06 ± 4.65	0.00 ± 0.00	10.90 ± 1.27	3.31 ± 1.04	0.00 ± 0.00	0.00 ± 0.00	66.20 ± 5.20	85.43 ± 7.57	19.23 ± 9.18
AZUS 07/1/87	17	15.82 ± 0.91	11.71 ± 2.90	0.00 ± 0.00	12.15 ± 1.02	4.33 ± 1.42	0.00 ± 0.00	2.69 ± 0.43	46.71 ± 3.54	63.71 ± 3.82	17.00 ± 5.21
AZUS 07/1/87	60	12.13 ± 1.01	13.13 ± 3.43	0.00 ± 0.00	8.95 ± 0.80	8.84 ± 1.71	0.00 ± 0.00	5.12 ± 0.87	48.16 ± 4.17	55.50 ± 5.34	7.34 ± 6.78
AZUS 07/1/87	65	65.45 ± 2.12	17.31 ± 4.52	0.00 ± 0.00	9.82 ± 1.08	8.81 ± 2.00	0.00 ± 0.00	8.40 ± 1.13	109.79 ± 5.61	120.52 ± 6.61	10.73 ± 8.82
AZUS 07/1/87	69	71.11 ± 2.53	27.92 ± 6.82	0.00 ± 0.00	8.74 ± 1.59	0.09 ± 2.83	0.00 ± 0.00	9.05 ± 1.22	116.91 ± 8.02	138.90 ± 7.10	21.99 ± 10.71
AZUS 07/1/87	13	56.95 ± 2.12	23.48 ± 5.60	0.00 ± 0.00	8.71 ± 1.27	0.00 ± 0.00	0.00 ± 0.00	7.77 ± 0.95	96.91 ± 6.18	122.06 ± 6.82	25.17 ± 9.20
AZUS 07/1/87	17	20.60 ± 1.42	20.81 ± 4.98	0.00 ± 0.00	8.90 ± 1.69	5.34 ± 2.25	0.00 ± 0.00	5.41 ± 0.72	60.96 ± 5.80	65.23 ± 5.35	4.27 ± 7.89
AZUS 07/1/87	60	41.17 ± 8.84	8.00 ± 0.00	8.00 ± 0.00	8.61 ± 3.11	0.00 ± 0.00	0.00 ± 0.00	8.74 ± 1.18	154.64 ± 10.11	183.85 ± 6.84	29.21 ± 12.21
AZUS 07/1/87	65	77.13 ± 3.18	32.99 ± 7.73	0.00 ± 0.00	11.54 ± 2.22	10.53 ± 3.55	0.00 ± 0.00	9.73 ± 1.34	141.00 ± 9.19	164.54 ± 6.97	23.54 ± 11.53
AZUS 07/1/87	69	76.21 ± 2.77	26.25 ± 6.23	0.00 ± 0.00	15.49 ± 2.50	0.00 ± 0.00	0.00 ± 0.00	8.73 ± 1.16	124.89 ± 7.02	153.34 ± 6.76	28.35 ± 9.75

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (µg/m ³)	Molar Vol. Exhaust SCE ± σ (µg/m ³)	Vegetative Secondary Sulfate SCE ± σ (µg/m ³)	Secondary Sulfate SCE ± σ (µg/m ³)	Secondary SCE ± σ (µg/m ³)	Secondary (Limestone) SCE ± σ (µg/m ³)	Combustion SCE ± σ (µg/m ³)	Oil SCE ± σ (µg/m ³)	Marine Aerosol SCE ± σ (µg/m ³)	Calculated Mass ± σ (µg/m ³)	Measured Mass ± σ (µg/m ³)	Unexplained Mass ± σ (µg/m ³)	
SCE ^b	Date/Time ^a	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	SCE ^b	
AZUS	06/20/87	17	22.93 ± 1.39	19.51 ± 4.61	0.00 ± 0.00	9.88 ± 1.20	9.12 ± 2.16	0.00 ± 0.00	0.00 ± 0.00	8.18 ± 0.78	69.61 ± 5.43	77.85 ± 3.94
AZUS	06/20/87	09	14.70 ± 1.04	12.88 ± 3.24	0.00 ± 0.00	12.24 ± 1.09	19.69 ± 2.01	0.00 ± 0.00	0.00 ± 0.00	6.68 ± 0.74	66.18 ± 4.18	79.07 ± 5.44
AZUS	06/20/87	05	32.93 ± 1.91	23.89 ± 5.85	0.00 ± 0.00	15.61 ± 2.11	22.61 ± 3.65	0.00 ± 0.00	0.00 ± 0.00	8.73 ± 1.12	103.82 ± 7.10	123.01 ± 6.81
AZUS	06/20/87	09	40.77 ± 1.98	22.82 ± 5.30	0.00 ± 0.00	29.60 ± 5.04	16.76 ± 3.03	0.00 ± 0.00	0.00 ± 0.00	5.68 ± 1.01	122.32 ± 7.06	140.32 ± 6.84
AZUS	06/20/87	13	28.79 ± 1.54	17.66 ± 4.52	0.00 ± 0.00	40.82 ± 7.65	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.71 ± 0.95	90.97 ± 5.63	123.32 ± 6.99
AZUS	06/20/87	17	21.63 ± 1.05	13.45 ± 3.33	0.00 ± 0.00	22.06 ± 2.49	11.62 ± 1.89	0.00 ± 0.00	0.00 ± 0.00	3.04 ± 0.46	71.80 ± 4.32	85.62 ± 3.80
AZUS	06/02/87	09	23.03 ± 1.04	9.59 ± 2.32	0.00 ± 0.00	2.55 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 0.50	37.77 ± 2.84	49.80 ± 5.23
AZUS	06/02/87	05	49.94 ± 1.63	8.49 ± 2.51	0.00 ± 0.00	2.24 ± 0.26	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.36 ± 0.66	60.13 ± 3.13	79.88 ± 6.87
AZUS	06/02/87	09	24.70 ± 1.16	6.11 ± 2.02	0.00 ± 0.00	1.90 ± 0.22	0.42 ± 0.72	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	33.13 ± 2.50	49.61 ± 6.96
AZUS	06/02/87	13	74.12 ± 2.25	18.56 ± 4.52	0.00 ± 0.00	5.62 ± 0.73	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.48 ± 0.80	103.78 ± 5.20	147.45 ± 6.41
AZUS	06/02/87	17	31.28 ± 1.12	10.75 ± 2.58	0.00 ± 0.00	5.42 ± 0.35	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.14 ± 0.63	53.60 ± 2.95	71.29 ± 3.93
AZUS	06/02/87	09	26.80 ± 1.12	8.66 ± 2.37	0.00 ± 0.00	6.50 ± 0.36	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.83 ± 0.75	47.99 ± 2.81	55.62 ± 5.64
AZUS	06/02/87	05	74.24 ± 2.26	15.32 ± 3.87	0.00 ± 0.00	7.03 ± 0.71	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.39 ± 1.03	104.98 ± 4.89	126.58 ± 6.80
AZUS	06/02/87	09	64.87 ± 2.10	16.59 ± 4.20	0.00 ± 0.00	9.03 ± 0.96	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.68 ± 1.10	98.18 ± 4.34	121.09 ± 7.08
AZUS	06/02/87	13	40.41 ± 1.86	10.46 ± 2.94	0.00 ± 0.00	9.96 ± 0.77	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.08 ± 1.07	87.92 ± 3.76	106.90 ± 6.81
AZUS	06/02/87	17	14.69 ± 0.75	7.30 ± 1.39	0.00 ± 0.00	8.20 ± 0.42	2.61 ± 0.49	0.00 ± 0.00	0.00 ± 0.00	5.90 ± 0.56	38.70 ± 2.27	47.24 ± 3.82
SUNK	06/19/87	09	8.73 ± 0.59	11.73 ± 3.27	0.00 ± 0.00	2.29 ± 0.24	4.18 ± 1.23	0.00 ± 0.00	0.00 ± 0.00	10.56 ± 0.77	37.49 ± 3.67	50.67 ± 5.21
SUNK	06/19/87	05	11.62 ± 0.96	26.30 ± 5.34	0.00 ± 0.00	4.34 ± 0.67	5.08 ± 1.92	0.11 ± 0.46	0.00 ± 0.00	14.21 ± 1.18	62.35 ± 5.95	79.81 ± 6.59
SUNK	06/19/87	09	23.70 ± 1.65	28.30 ± 6.00	0.00 ± 0.00	10.67 ± 1.30	4.14 ± 1.79	0.79 ± 0.63	0.00 ± 0.00	11.14 ± 1.38	78.74 ± 6.77	97.68 ± 6.90
SUNK	06/19/87	13	17.52 ± 1.12	19.88 ± 4.67	0.00 ± 0.00	8.72 ± 0.78	1.10 ± 1.31	0.48 ± 0.50	0.00 ± 0.00	9.63 ± 1.20	57.33 ± 5.26	63.76 ± 6.84
SUNK	06/19/87	17	8.56 ± 0.52	13.73 ± 3.04	0.00 ± 0.00	6.30 ± 0.41	8.24 ± 1.32	0.00 ± 0.00	0.00 ± 0.00	6.96 ± 0.57	43.82 ± 3.86	56.07 ± 3.71
SUNK	06/24/87	09	12.24 ± 0.68	15.12 ± 4.04	0.00 ± 0.00	27.05 ± 3.68	11.84 ± 2.18	0.00 ± 0.00	0.00 ± 0.00	9.91 ± 1.12	76.15 ± 5.17	101.26 ± 5.17
SUNK	06/24/87	05	19.57 ± 1.43	24.41 ± 5.38	0.00 ± 0.00	26.63 ± 4.16	8.50 ± 2.16	0.00 ± 0.00	0.00 ± 0.00	10.82 ± 1.32	89.92 ± 6.47	118.11 ± 6.82
SUNK	06/24/87	09	21.45 ± 1.09	29.37 ± 6.61	0.00 ± 0.00	29.81 ± 5.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	11.35 ± 1.31	91.98 ± 7.23	129.75 ± 6.72
SUNK	06/24/87	13	14.31 ± 0.87	22.27 ± 5.76	0.00 ± 0.00	31.11 ± 5.70	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.61 ± 1.09	77.29 ± 6.42	116.50 ± 6.92
SUNK	06/24/87	17	9.22 ± 0.67	13.65 ± 2.94	0.00 ± 0.00	14.76 ± 1.34	9.71 ± 1.17	0.00 ± 0.00	0.00 ± 0.00	6.66 ± 0.81	54.21 ± 3.55	73.17 ± 3.77
SUNK	06/25/87	09	8.83 ± 0.50	11.20 ± 3.27	0.00 ± 0.00	26.59 ± 2.35	17.30 ± 1.96	0.00 ± 0.00	0.00 ± 0.00	4.96 ± 0.97	68.87 ± 4.35	87.81 ± 5.26
SUNK	06/25/87	05	17.98 ± 0.99	23.00 ± 5.24	0.00 ± 0.00	21.87 ± 3.30	20.92 ± 2.69	0.00 ± 0.00	0.00 ± 0.00	5.91 ± 1.04	89.68 ± 6.40	112.54 ± 6.90
SUNK	06/25/87	09	21.16 ± 1.17	31.42 ± 6.58	0.00 ± 0.00	24.36 ± 4.04	4.05 ± 2.55	0.80 ± 0.00	0.00 ± 0.00	7.93 ± 1.19	88.92 ± 7.36	124.35 ± 6.78
SUNK	06/25/87	13	16.25 ± 0.87	15.32 ± 4.56	0.00 ± 0.00	24.69 ± 3.30	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.62 ± 0.96	61.88 ± 5.11	92.96 ± 6.69

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/Time ^b	Primary Geological Source ± σ (μg/m ³)	Primary Molar Vol. Emissions SCE ± σ (μg/m ³)	Secondary Vegetative Burning SCE ± σ (μg/m ³)	Secondary Soil/Soil SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Combustion SCE ± σ (μg/m ³)	Oil SCE ± σ (μg/m ³)	Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)	
BURK	06/25/87	17	8.57 ± 0.51	13.02 ± 2.98	0.00 ± 0.00	10.45 ± 0.83	11.64 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	1.30 ± 0.56	46.97 ± 3.55	64.21 ± 3.81	17.24 ± 5.21
BURK	07/13/87	60	3.65 ± 0.42	14.00 ± 3.72	0.00 ± 0.00	3.37 ± 0.33	1.76 ± 1.48	0.00 ± 0.00	0.00 ± 0.00	5.35 ± 0.66	28.83 ± 4.13	39.42 ± 5.20	10.59 ± 6.64
BURK	07/13/87	63	11.80 ± 0.74	17.29 ± 4.71	0.00 ± 0.00	4.04 ± 0.53	2.07 ± 1.65	0.00 ± 0.00	0.00 ± 0.00	4.06 ± 0.68	40.08 ± 5.16	49.30 ± 6.65	9.22 ± 8.42
BURK	07/13/87	69	10.20 ± 0.80	22.56 ± 4.83	0.00 ± 0.00	6.15 ± 0.70	7.16 ± 1.16	0.00 ± 0.00	0.00 ± 0.00	4.52 ± 0.49	50.60 ± 5.12	56.16 ± 6.74	5.56 ± 8.46
BURK	07/13/87	73	8.76 ± 0.73	15.14 ± 4.25	0.00 ± 0.00	5.19 ± 0.51	1.12 ± 0.85	0.00 ± 0.00	0.00 ± 0.00	2.17 ± 0.67	32.39 ± 4.52	40.65 ± 6.74	8.26 ± 8.12
BURK	07/13/87	77	5.99 ± 0.36	8.72 ± 2.48	0.00 ± 0.00	4.39 ± 0.20	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.72 ± 0.51	22.42 ± 2.61	34.34 ± 3.82	11.92 ± 4.63
BURK	07/13/87	80	4.31 ± 0.42	11.17 ± 3.19	0.00 ± 0.00	5.37 ± 0.40	6.45 ± 1.35	0.00 ± 0.00	0.00 ± 0.00	4.46 ± 0.62	31.75 ± 3.61	41.54 ± 5.28	9.79 ± 6.40
BURK	07/14/87	65	13.74 ± 0.83	20.46 ± 4.94	0.00 ± 0.00	10.82 ± 1.22	12.09 ± 2.14	0.00 ± 0.00	0.00 ± 0.00	2.63 ± 0.42	59.75 ± 5.59	63.02 ± 6.11	7.27 ± 8.73
BURK	07/14/87	69	22.99 ± 1.06	25.06 ± 6.34	0.00 ± 0.00	18.31 ± 2.67	2.41 ± 0.93	0.00 ± 0.00	0.00 ± 0.00	3.60 ± 0.91	72.31 ± 6.78	89.81 ± 6.69	17.44 ± 9.52
BURK	07/14/87	73	12.46 ± 0.83	18.33 ± 4.85	0.00 ± 0.00	12.68 ± 1.31	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.59 ± 0.76	47.25 ± 5.13	65.10 ± 6.73	17.85 ± 8.46
BURK	07/14/87	77	7.47 ± 0.56	12.71 ± 6.36	0.00 ± 0.00	7.43 ± 0.56	6.07 ± 1.36	0.00 ± 0.00	0.00 ± 0.00	1.85 ± 0.42	35.49 ± 6.60	44.24 ± 3.78	8.75 ± 7.61
BURK	07/15/87	60	7.71 ± 0.57	10.76 ± 3.12	0.00 ± 0.00	14.89 ± 1.39	11.64 ± 1.54	0.00 ± 0.00	0.00 ± 0.00	3.31 ± 0.50	48.30 ± 3.78	63.88 ± 5.31	15.58 ± 6.52
BURK	07/15/87	65	7.71 ± 0.57	10.76 ± 3.12	0.00 ± 0.00	14.89 ± 1.39	11.64 ± 1.54	0.00 ± 0.00	0.00 ± 0.00	64.41 ± 5.31	79.40 ± 6.73	14.99 ± 8.57	
BURK	07/15/87	66	14.74 ± 0.85	17.16 ± 4.51	0.00 ± 0.00	15.18 ± 1.69	13.52 ± 2.12	0.00 ± 0.00	0.00 ± 0.00	3.81 ± 0.83	43.32 ± 3.49	50.50 ± 5.18	
BURK	07/15/87	69	20.34 ± 1.06	26.80 ± 5.97	0.00 ± 0.00	25.57 ± 3.67	2.81 ± 2.42	0.00 ± 0.00	0.00 ± 0.00	5.15 ± 0.68	80.67 ± 6.89	100.39 ± 6.72	19.72 ± 9.62
BURK	07/15/87	73	14.88 ± 0.89	21.95 ± 5.33	0.00 ± 0.00	14.15 ± 1.34	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.37 ± 0.73	53.35 ± 5.61	75.43 ± 6.71	22.08 ± 8.75
BURK	07/15/87	77	8.85 ± 0.50	13.10 ± 3.15	0.00 ± 0.00	15.68 ± 1.50	13.71 ± .73	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	51.42 ± 3.85	64.29 ± 3.83	12.87 ± 5.43
BURK	08/27/87	60	5.56 ± 0.52	11.91 ± 2.65	0.00 ± 0.00	9.80 ± 0.72	13.16 ± 1.44	0.00 ± 0.00	0.00 ± 0.00	2.89 ± 0.53	43.32 ± 3.49	50.50 ± 5.18	
BURK	08/27/87	65	20.62 ± 0.99	16.21 ± 4.68	0.00 ± 0.00	9.82 ± 0.93	12.17 ± 2.04	0.00 ± 0.00	0.00 ± 0.00	4.85 ± 1.10	63.67 ± 5.42	75.47 ± 6.71	11.80 ± 8.63
BURK	08/27/87	69	10.55 ± 0.65	14.72 ± 3.83	0.00 ± 0.00	8.46 ± 0.67	6.34 ± 1.64	0.00 ± 0.00	0.00 ± 0.00	4.81 ± 0.97	59.13 ± 6.85	85.00 ± 6.91	25.81 ± 9.73
BURK	08/27/87	73	23.20 ± 1.05	10.94 ± 6.39	0.00 ± 0.00	10.78 ± 1.10	9.37 ± 1.64	0.00 ± 0.00	0.00 ± 0.00	5.37 ± 1.09	61.98 ± 4.68	63.91 ± 6.79	12.33 ± 8.25
BURK	08/27/87	77	18.18 ± 0.99	24.96 ± 5.86	0.00 ± 0.00	7.68 ± 0.67	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.47 ± 1.05	7.18 ± 6.24		
BURK	08/27/87	79	21.06 ± 1.13	24.59 ± 5.83	0.00 ± 0.00	11.41 ± 1.53	3.21 ± 2.55	0.00 ± 0.00	0.00 ± 0.00	6.55 ± 0.60	47.65 ± 3.76	54.49 ± 3.74	
BURK	08/27/87	87	12.65 ± 0.60	13.70 ± 3.27	0.00 ± 0.00	6.92 ± 0.65	5.83 ± 1.43	0.00 ± 0.00	0.00 ± 0.00	4.85 ± 1.10	63.67 ± 5.42	75.47 ± 6.71	16.64 ± 8.72
BURK	08/28/87	13	18.16 ± 0.97	19.53 ± 5.15	0.00 ± 0.00	15.09 ± 1.68	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.23 ± 0.82	45.31 ± 4.39	52.44 ± 5.35	
BURK	08/28/87	60	10.55 ± 0.65	14.72 ± 3.83	0.00 ± 0.00	8.46 ± 0.67	10.31 ± 1.58	0.00 ± 0.00	0.00 ± 0.00	1.64 ± 0.73	54.12 ± 3.85	62.86 ± 3.84	11.26 ± 9.33
BURK	08/28/87	77	14.92 ± 0.64	12.70 ± 3.27	0.00 ± 0.00	10.82 ± 2.47	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.10 ± 0.72	64.82 ± 5.54	71.29 ± 5.28	6.47 ± 7.65
BURK	08/29/87	65	19.80 ± 5.18	20.00 ± 4.83	0.00 ± 0.00	9.34 ± 0.99	17.12 ± 2.30	0.00 ± 0.00	0.00 ± 0.00	8.75 ± 1.14	75.92 ± 6.69	97.63 ± 6.26	21.81 ± 9.16
BURK	08/29/87	69	12.26 ± 0.68	15.42 ± 2.11	0.00 ± 0.00	19.96 ± 2.79	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.68 ± 1.02	59.82 ± 5.52	76.46 ± 6.71	
BURK	08/29/87	65	16.82 ± 0.91	24.65 ± 5.88	0.00 ± 0.00	12.70 ± 2.47	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.74 ± 5.44			
BURK	08/29/87	69	24.89 ± 6.70	0.00 ± 0.00	26.50 ± 5.80	7.68 ± 3.55	0.00 ± 0.00	0.00 ± 0.00	8.71 ± 1.03	112.04 ± 6.85			
BURK	08/29/87	69	10.87 ± 0.77	19.80 ± 5.18	0.00 ± 0.00	32.98 ± 8.36	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.97 ± 0.74	85.39 ± 6.82		
BURK	08/29/87	13	10.87 ± 0.77										

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological	Motor Veh. Emissions	Vegetative Burning	Secondary Sulfate	Secondary Nitrate (Limestone)	Construction SCE ± σ	Oil Combustion SCE ± σ	Marine Aerosol	Calculated Mass ± σ	Measured Mass ± σ	Unexplained Mass ± σ (dust)
Site	Date/Time*	[μg/m ³]	[μg/m ³]	[μg/m ³]	[μg/m ³]	[μg/m ³]	[μg/m ³]	[μg/m ³]	[μg/m ³]	[μg/m ³]
BURK	06/29/87	17	10.65 ± 0.50	14.15 ± 3.32	0.00 ± 0.00	19.01 ± 2.61	9.91 ± 2.24	0.00 ± 0.00	3.42 ± 0.49	57.15 ± 4.40
BURK	06/29/87	60	10.46 ± 0.59	17.95 ± 4.06	0.00 ± 0.00	1.14 ± 0.29	0.32 ± 1.29	0.00 ± 0.00	0.25 ± 0.46	30.10 ± 4.44
BURK	06/29/87	65	22.33 ± 1.36	16.91 ± 4.18	0.00 ± 0.00	1.50 ± 0.47	0.00 ± 0.00	0.00 ± 0.00	1.43 ± 0.54	42.18 ± 4.50
BURK	06/29/87	69	22.35 ± 1.40	18.79 ± 4.03	0.00 ± 0.00	2.69 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	1.51 ± 0.75	45.25 ± 5.15
BURK	06/29/87	13	14.17 ± 0.83	13.80 ± 3.54	0.00 ± 0.00	4.08 ± 0.43	0.00 ± 0.00	0.00 ± 0.00	3.33 ± 0.71	35.37 ± 3.78
BURK	06/29/87	17	17.28 ± 0.97	14.69 ± 3.46	0.00 ± 0.00	4.36 ± 0.30	0.75 ± 0.69	0.00 ± 0.00	6.18 ± 0.38	43.26 ± 3.76
BURK	06/29/87	60	10.42 ± 0.73	17.05 ± 3.88	0.00 ± 0.00	6.29 ± 0.51	4.53 ± 1.54	0.00 ± 0.00	7.95 ± 0.73	46.24 ± 4.37
BURK	06/29/87	65	20.24 ± 1.06	19.56 ± 4.75	0.00 ± 0.00	6.41 ± 0.65	3.74 ± 1.51	0.00 ± 0.00	8.23 ± 1.02	58.00 ± 5.28
BURK	06/29/87	69	24.32 ± 1.14	21.74 ± 5.58	0.00 ± 0.00	11.80 ± 1.35	0.00 ± 0.00	0.00 ± 0.00	6.70 ± 1.12	67.07 ± 5.94
BURK	06/29/87	13	21.37 ± 1.02	12.30 ± 4.11	0.00 ± 0.00	13.68 ± 1.19	0.00 ± 0.00	0.00 ± 0.00	9.65 ± 1.13	57.00 ± 4.54
BURK	06/29/87	17	14.97 ± 0.59	6.70 ± 1.83	0.00 ± 0.00	14.65 ± 1.03	12.10 ± 1.38	0.00 ± 0.00	5.29 ± 0.50	52.81 ± 2.65
BURK	06/11/87	60	7.54 ± 0.49	27.03 ± 4.45	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.17 ± 0.24	35.74 ± 4.51
BURK	06/11/87	65	9.77 ± 1.00	21.66 ± 4.18	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.10 ± 0.32	32.53 ± 4.31
BURK	06/11/87	10	7.22 ± 1.23	7.86 ± 3.20	0.00 ± 0.00	0.39 ± 0.24	0.00 ± 0.00	0.00 ± 0.00	1.03 ± 0.26	16.50 ± 3.49
BURK	06/11/87	14	4.68 ± 0.94	9.59 ± 2.83	0.00 ± 0.00	0.32 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	1.17 ± 0.31	17.76 ± 3.03
BURK	06/11/87	18	10.50 ± 0.74	22.67 ± 4.38	0.00 ± 0.00	0.00 ± 0.00	0.42 ± 2.09	0.00 ± 0.00	1.10 ± 0.25	35.30 ± 4.97
BURK	11/12/87	60	4.91 ± 0.61	19.09 ± 3.54	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.94 ± 0.21	24.94 ± 3.60
BURK	11/12/87	65	10.40 ± 1.00	23.92 ± 4.65	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.40 ± 0.33	35.72 ± 4.77
BURK	11/12/87	10	7.38 ± 0.24	21.93 ± 4.63	0.00 ± 0.00	0.00 ± 0.00	16.33 ± 2.23	0.00 ± 0.00	1.44 ± 0.33	47.06 ± 5.33
BURK	11/12/87	14	18.19 ± 1.32	39.57 ± 7.54	0.00 ± 0.00	2.98 ± 1.14	52.33 ± 4.57	0.00 ± 0.00	3.80 ± 0.52	116.86 ± 9.93
BURK	11/12/87	18	14.31 ± 0.97	45.16 ± 7.20	0.00 ± 0.00	0.00 ± 0.00	32.02 ± 4.28	0.00 ± 0.00	4.44 ± 0.48	95.93 ± 8.44
BURK	11/13/87	60	8.28 ± 0.70	41.19 ± 8.50	0.00 ± 0.00	8.93 ± 2.00	22.29 ± 4.07	0.00 ± 0.00	6.62 ± 0.61	87.33 ± 9.38
BURK	11/13/87	65	12.36 ± 1.07	34.05 ± 7.40	0.00 ± 0.00	12.93 ± 2.11	40.01 ± 3.94	0.00 ± 0.00	4.21 ± 0.50	103.58 ± 8.61
BURK	11/13/87	10	15.25 ± 1.18	44.37 ± 9.22	0.00 ± 0.00	18.56 ± 4.10	56.99 ± 5.32	0.00 ± 0.00	2.22 ± 0.39	137.39 ± 10.92
BURK	11/13/87	14	14.38 ± 1.16	27.51 ± 6.37	0.00 ± 0.00	19.27 ± 3.15	30.32 ± 3.41	0.00 ± 0.00	3.86 ± 0.51	95.95 ± 7.36
BURK	11/13/87	18	4.40 ± 0.68	22.31 ± 4.42	0.00 ± 0.00	6.38 ± 0.64	11.89 ± 1.99	0.00 ± 0.00	4.17 ± 0.41	49.15 ± 4.99
BURK	12/03/87	60	10.21 ± 0.76	72.37 ± 14.02	0.00 ± 0.00	3.93 ± 5.10	62.49 ± 7.59	0.00 ± 0.00	1.68 ± 0.39	150.68 ± 16.13
BURK	12/03/87	65	17.80 ± 1.41	73.89 ± 13.43	0.00 ± 0.00	4.09 ± 4.14	69.65 ± 7.44	0.00 ± 0.00	2.12 ± 0.47	167.54 ± 15.57
BURK	12/03/87	10	13.87 ± 1.07	22.98 ± 6.38	0.00 ± 0.00	2.77 ± 0.79	34.75 ± 3.39	0.00 ± 0.00	0.76 ± 0.26	101.97 ± 7.35
BURK	12/03/87	14	14.17 ± 1.23	45.55 ± 8.99	0.00 ± 0.00	7.22 ± 2.01	70.57 ± 5.94	0.00 ± 0.00	1.83 ± 0.38	139.28 ± 10.96

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological	Primary Motor Veh. Emissions	Vegetative Burning	Secondary Sulfate	Secondary Nitrate (Limestone)	Oil Combustion	Marine Aerosol	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	SCE ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
BURK	12/01/87	13	10.44 ± 0.80	65.73 ± 12.34	0.00 ± 0.00	3.46 ± 1.96	48.55 ± 6.48	0.00 ± 0.00
BURK	12/01/87	09	8.14 ± 0.71	49.10 ± 7.94	0.00 ± 0.00	5.46 ± 4.21	0.00 ± 0.00	0.29 ± 0.26
BURK	12/01/87	04	7.82 ± 0.94	32.66 ± 6.37	0.00 ± 0.00	0.42 ± 2.92	0.00 ± 0.00	0.23 ± 0.22
BURK	12/01/87	10	6.38 ± 0.92	17.61 ± 4.01	0.00 ± 0.00	5.19 ± 1.51	0.00 ± 0.00	0.21 ± 0.18
BURK	12/01/87	14	8.87 ± 1.04	29.33 ± 5.94	0.00 ± 0.00	0.26 ± 0.63	33.20 ± 3.28	0.00 ± 0.00
BURK	12/01/87	18	15.35 ± 0.89	46.84 ± 7.80	0.00 ± 0.00	0.00 ± 0.00	17.28 ± 4.21	0.00 ± 0.00
BURK	12/11/87	00	5.32 ± 0.70	32.75 ± 5.23	0.00 ± 0.00	0.00 ± 0.00	7.84 ± 2.53	0.00 ± 0.00
BURK	12/11/87	06	11.34 ± 1.10	47.98 ± 7.69	0.00 ± 0.00	0.00 ± 0.00	5.51 ± 3.72	0.00 ± 0.00
BURK	12/11/87	10	9.10 ± 1.02	34.77 ± 6.85	0.00 ± 0.00	0.17 ± 0.30	21.86 ± 3.42	0.00 ± 0.00
BURK	12/11/87	14	10.34 ± 1.49	69.13 ± 12.61	0.00 ± 0.00	7.09 ± 3.63	96.10 ± 7.81	0.00 ± 0.00
BURK	12/11/87	18	17.40 ± 1.07	65.12 ± 9.77	0.00 ± 0.00	0.00 ± 0.00	14.83 ± 5.41	0.00 ± 0.00
CELA	06/19/87	00	7.61 ± 0.56	9.76 ± 2.67	0.00 ± 0.00	2.14 ± 0.20	3.40 ± 0.66	0.00 ± 0.00
CELA	06/19/87	05	14.06 ± 1.42	27.49 ± 5.83	0.00 ± 0.00	9.16 ± 1.14	3.01 ± 1.96	0.00 ± 0.00
CELA	06/19/87	09	18.76 ± 1.31	14.92 ± 4.85	0.00 ± 0.00	11.67 ± 1.14	5.16 ± 1.07	0.00 ± 0.00
CELA	06/19/87	13	8.73 ± 0.95	12.92 ± 3.57	0.00 ± 0.00	6.31 ± 0.43	0.00 ± 0.00	0.00 ± 0.00
CELA	06/19/87	17	7.57 ± 0.46	10.97 ± 2.86	0.00 ± 0.00	5.81 ± 0.35	5.25 ± 1.20	0.00 ± 0.00
CELA	06/24/87	00	13.63 ± 1.01	13.66 ± 3.63	0.00 ± 0.00	26.45 ± 3.58	9.81 ± 1.81	0.00 ± 0.00
CELA	06/24/87	05	22.62 ± 1.12	25.13 ± 5.36	0.00 ± 0.00	30.22 ± 5.85	17.44 ± 2.85	0.00 ± 0.00
CELA	06/24/87	09	24.27 ± 1.43	21.99 ± 6.34	0.00 ± 0.00	36.58 ± 7.86	0.00 ± 0.00	0.00 ± 0.00
CELA	06/24/87	13	11.25 ± 0.77	13.90 ± 4.46	0.00 ± 0.00	27.64 ± 3.78	0.00 ± 0.00	0.00 ± 0.00
CELA	06/24/87	17	8.28 ± 0.72	12.15 ± 2.81	0.00 ± 0.00	14.89 ± 1.23	2.66 ± 1.10	0.00 ± 0.00
CELA	06/25/87	00	8.55 ± 0.70	17.54 ± 3.03	0.00 ± 0.00	21.47 ± 2.92	15.25 ± 1.97	0.00 ± 0.00
CELA	06/25/87	05	19.88 ± 1.09	26.60 ± 5.79	0.00 ± 0.00	25.50 ± 4.83	25.51 ± 3.08	0.00 ± 0.00
CELA	07/13/87	00	2.58 ± 0.38	11.97 ± 3.37	0.00 ± 0.00	4.91 ± 0.38	3.54 ± 1.38	0.00 ± 0.00
CELA	07/13/87	05	10.46 ± 0.75	22.46 ± 5.24	0.00 ± 0.00	7.07 ± 0.83	7.36 ± 1.95	0.00 ± 0.00
CELA	07/13/87	09	8.92 ± 0.71	18.26 ± 4.66	0.00 ± 0.00	8.43 ± 0.80	0.00 ± 0.00	0.00 ± 0.00
CELA	07/13/87	13	4.74 ± 0.63	9.49 ± 3.11	0.00 ± 0.00	4.98 ± 0.34	0.00 ± 0.00	0.00 ± 0.00

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological Source ^a	Site ^b	Primary Motor Veh. Exhaust SCE ± *	Vegetative Burning SCE ± *	Secondary Sulfate SCE ± *	Secondary (Limestone) SCE ± *	Construction SCE ± *	Oil Combustion (gasoline) SCE ± *	Marine Aerosol SCE ± *	Measured Mass ± *	Unexplained Mass ± *
CELA	07/13/87	17	4.52 ± 0.38	7.17 ± 2.04	0.00 ± 0.00	3.32 ± 0.14	1.68 ± 0.48	0.00 ± 0.00	4.31 ± 0.48	21.00 ± 2.24
CELA	07/14/87	60	4.17 ± 0.43	7.94 ± 2.31	0.00 ± 0.00	8.37 ± 0.51	6.84 ± 1.08	0.00 ± 0.00	3.92 ± 0.42	31.24 ± 2.73
CELA	07/14/87	65	14.17 ± 0.98	26.89 ± 5.59	0.00 ± 0.00	20.00 ± 2.84	10.75 ± 2.41	0.00 ± 0.00	5.10 ± 0.36	42.17 ± 5.36
CELA	07/14/87	69	17.52 ± 0.97	24.32 ± 5.48	0.00 ± 0.00	22.24 ± 3.05	0.00 ± 0.00	0.00 ± 0.00	5.07 ± 1.02	81.32 ± 6.91
CELA	07/14/87	13	6.94 ± 0.67	13.36 ± 3.07	0.00 ± 0.00	12.10 ± 1.02	0.00 ± 0.00	0.00 ± 0.00	2.92 ± 0.64	69.14 ± 6.13
CELA	07/14/87	17	4.96 ± 0.39	7.15 ± 2.21	0.00 ± 0.00	8.63 ± 0.49	3.17 ± 0.97	0.00 ± 0.00	2.69 ± 0.34	43.53 ± 4.13
CELA	07/15/87	60	7.43 ± 0.87	13.24 ± 3.35	0.00 ± 0.00	16.28 ± 1.45	7.15 ± 1.58	0.00 ± 0.00	4.26 ± 0.73	61.35 ± 5.41
CELA	07/15/87	65	13.58 ± 0.97	26.99 ± 5.62	0.00 ± 0.00	19.77 ± 2.58	11.22 ± 2.25	0.00 ± 0.00	5.48 ± 0.94	71.04 ± 6.44
CELA	07/15/87	69	22.87 ± 1.04	20.82 ± 3.69	0.00 ± 0.00	19.21 ± 2.63	3.60 ± 2.35	0.00 ± 0.00	3.06 ± 0.72	69.35 ± 6.52
CELA	07/15/87	13	9.72 ± 0.78	18.19 ± 4.41	0.00 ± 0.00	11.90 ± 1.06	0.00 ± 0.00	0.00 ± 0.00	1.03 ± 0.75	41.69 ± 4.68
CELA	07/15/87	17	6.57 ± 0.46	10.49 ± 2.72	0.00 ± 0.00	16.40 ± 1.30	0.00 ± 0.00	0.00 ± 0.00	1.49 ± 0.42	35.15 ± 3.03
CELA	08/21/87	60	4.48 ± 0.51	7.27 ± 2.46	0.00 ± 0.00	6.99 ± 0.42	5.45 ± 1.19	0.00 ± 0.00	8.46 ± 0.89	32.66 ± 3.02
CELA	08/21/87	65	17.08 ± 0.93	22.79 ± 5.36	0.00 ± 0.00	8.15 ± 1.04	10.24 ± 2.13	0.00 ± 0.00	7.14 ± 0.92	63.40 ± 6.04
CELA	08/21/87	69	16.25 ± 0.85	18.27 ± 4.32	0.00 ± 0.00	8.87 ± 0.96	0.00 ± 0.00	0.00 ± 0.00	9.68 ± 1.16	53.07 ± 4.68
CELA	08/21/87	13	13.56 ± 0.85	11.55 ± 3.53	0.00 ± 0.00	7.57 ± 0.57	0.00 ± 0.00	0.00 ± 0.00	6.47 ± 0.88	39.15 ± 3.83
CELA	08/21/87	17	10.81 ± 0.56	11.47 ± 3.08	0.00 ± 0.00	9.59 ± 0.67	1.31 ± 0.60	0.00 ± 0.00	8.39 ± 0.76	41.57 ± 3.39
CELA	08/21/87	60	11.15 ± 0.77	24.18 ± 4.85	0.00 ± 0.00	9.07 ± 0.97	4.06 ± 2.05	0.00 ± 0.00	5.19 ± 0.72	53.65 ± 3.48
CELA	08/21/87	65	17.54 ± 0.97	30.49 ± 6.38	0.00 ± 0.00	10.16 ± 1.56	6.84 ± 2.65	0.00 ± 0.00	6.50 ± 1.01	72.21 ± 7.17
CELA	08/21/87	69	26.83 ± 1.72	29.62 ± 6.37	0.00 ± 0.00	17.00 ± 1.99	3.50 ± 1.32	0.00 ± 0.00	9.61 ± 1.40	86.56 ± 7.06
CELA	08/21/87	13	12.51 ± 0.82	11.05 ± 3.03	0.00 ± 0.00	13.90 ± 1.22	0.00 ± 0.00	0.00 ± 0.00	6.10 ± 0.98	43.35 ± 3.49
CELA	08/21/87	17	13.74 ± 0.63	12.00 ± 3.10	0.00 ± 0.00	7.86 ± 0.58	3.82 ± 1.23	0.00 ± 0.00	8.59 ± 0.76	46.02 ± 3.57
CELA	08/21/87	60	10.91 ± 0.63	13.15 ± 3.14	0.00 ± 0.00	12.60 ± 1.16	15.43 ± 1.90	0.00 ± 0.00	6.43 ± 0.73	58.51 ± 3.97
CELA	08/21/87	65	17.12 ± 0.92	21.73 ± 4.92	0.00 ± 0.00	21.24 ± 3.10	21.02 ± 2.95	0.00 ± 0.00	6.86 ± 0.88	87.97 ± 6.16
CELA	08/21/87	69	22.25 ± 0.98	14.10 ± 3.49	0.00 ± 0.00	28.31 ± 3.94	0.00 ± 0.00	0.00 ± 0.00	7.91 ± 0.89	72.59 ± 4.25
CELA	08/21/87	13	6.49 ± 0.62	13.32 ± 3.44	0.00 ± 0.00	30.65 ± 4.37	0.00 ± 0.00	0.00 ± 0.00	1.56 ± 0.59	52.24 ± 4.15
CELA	08/21/87	17	9.85 ± 0.48	9.83 ± 2.51	0.00 ± 0.00	17.61 ± 1.58	4.47 ± 1.42	0.00 ± 0.00	4.32 ± 0.51	46.08 ± 3.24
CELA	08/21/87	60	20.91 ± 0.98	29.36 ± 5.94	0.00 ± 0.00	2.67 ± 0.73	0.00 ± 0.00	0.00 ± 0.00	3.15 ± 0.78	60.11 ± 6.15
CELA	08/21/87	65	23.39 ± 5.31	23.67 ± 1.02	0.00 ± 0.00	2.22 ± 0.75	0.00 ± 0.00	0.00 ± 0.00	0.53 ± 0.49	49.81 ± 5.51
CELA	08/21/87	69	23.42 ± 1.20	39.71 ± 8.18	0.00 ± 0.00	3.07 ± 1.37	0.00 ± 0.00	0.00 ± 0.00	5.54 ± 1.10	104.86 ± 7.12
CELA	08/21/87	13	12.46 ± 0.78	12.08 ± 3.14	0.00 ± 0.00	4.11 ± 0.39	0.00 ± 0.00	0.00 ± 0.00	3.31 ± 0.70	51.95 ± 3.38

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time†	Primary Material Type‡	Primary Material Veh. Enhanced	Secondary Burnings SCE ± σ (μg/m ³)	Secondary Soil/ce SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary Construction SCE ± σ (μg/m ³)	ON Combustion SCE ± σ (μg/m ³)	Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
CELA	06/02/87	17	13.41 ± 0.64	10.94 ± 2.81	0.00 ± 0.00	4.71 ± 0.27	1.34 ± 0.54	0.00 ± 0.00	0.00 ± 0.00	5.45 ± 0.52	36.39 ± 3.03	47.20 ± 3.97
CELA	06/03/87	00	8.47 ± 0.61	11.00 ± 3.15	0.00 ± 0.00	7.22 ± 0.53	6.69 ± 1.36	0.00 ± 0.00	0.00 ± 0.00	9.25 ± 0.77	42.70 ± 3.65	56.15 ± 5.34
CELA	06/03/87	05	22.43 ± 1.13	36.48 ± 7.57	0.00 ± 0.00	10.30 ± 1.93	10.61 ± 3.28	0.00 ± 0.00	0.00 ± 0.00	10.59 ± 1.03	90.11 ± 8.79	103.35 ± 6.96
CELA	06/03/87	09	25.21 ± 1.19	25.50 ± 5.95	0.00 ± 0.00	13.58 ± 1.20	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.19 ± 1.17	73.56 ± 6.34	92.70 ± 6.86
CELA	06/03/87	13	16.37 ± 0.91	16.28 ± 3.56	0.00 ± 0.00	10.65 ± 0.81	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.01 ± 1.09	46.31 ± 3.96	58.49 ± 6.99
CELA	06/03/87	17	16.30 ± 0.53	7.61 ± 2.24	0.00 ± 0.00	10.86 ± 0.69	1.98 ± 1.09	0.00 ± 0.00	0.00 ± 0.00	9.40 ± 0.78	39.54 ± 2.81	48.87 ± 3.90
CELA	11/1/87	00	4.92 ± 1.34	24.47 ± 4.89	0.00 ± 0.00	0.02 ± 0.53	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.45 ± 0.15	29.85 ± 5.12	35.82 ± 4.80
CELA	11/1/87	04	4.94 ± 1.42	19.00 ± 3.97	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.38 ± 0.31	24.33 ± 4.23	39.16 ± 7.40
CELA	11/1/87	10	2.36 ± 0.90	9.94 ± 3.17	0.00 ± 0.00	0.25 ± 0.19	0.04 ± 0.78	0.00 ± 0.00	0.00 ± 0.00	0.13 ± 0.18	12.76 ± 3.42	21.22 ± 7.53
CELA	11/1/87	14	4.30 ± 0.92	14.62 ± 4.00	0.00 ± 0.00	0.53 ± 0.31	5.01 ± 1.48	0.00 ± 0.00	0.00 ± 0.00	0.91 ± 0.31	25.36 ± 4.42	32.98 ± 7.30
CELA	11/1/87	18	8.68 ± 1.63	31.76 ± 5.34	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.78 ± 0.23	41.22 ± 6.13	55.34 ± 4.88
CELA	11/1/87	20	3.76 ± 1.27	21.61 ± 4.73	0.00 ± 0.00	0.04 ± 0.46	0.53 ± 0.57	0.00 ± 0.00	0.00 ± 0.00	0.23 ± 0.15	26.18 ± 4.98	51.59 ± 4.84
CELA	11/1/87	06	8.41 ± 1.66	36.03 ± 4.90	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.11 ± 0.28	34.55 ± 5.18	66.34 ± 7.46
CELA	11/1/87	10	10.12 ± 1.65	25.87 ± 6.15	0.00 ± 0.00	1.10 ± 0.67	25.56 ± 2.89	0.00 ± 0.00	0.00 ± 0.00	0.58 ± 0.20	62.43 ± 7.03	76.41 ± 7.49
CELA	11/1/87	14	9.28 ± 1.05	33.89 ± 7.49	0.00 ± 0.00	2.80 ± 1.08	36.72 ± 3.62	0.00 ± 0.00	0.00 ± 0.00	2.28 ± 0.35	84.96 ± 8.47	101.51 ± 7.48
CELA	11/1/87	16	9.72 ± 2.01	40.99 ± 7.72	0.00 ± 0.00	1.75 ± 1.37	13.79 ± 3.52	0.00 ± 0.00	0.00 ± 0.00	2.84 ± 0.32	71.08 ± 8.80	78.36 ± 4.83
CELA	11/1/87	03	8.09 ± 2.12	46.95 ± 8.51	0.00 ± 0.00	14.01 ± 2.39	23.77 ± 3.98	0.00 ± 0.00	0.00 ± 0.00	3.41 ± 0.33	96.23 ± 9.78	120.40 ± 5.02
CELA	11/1/87	06	7.60 ± 1.00	41.56 ± 6.72	0.00 ± 0.00	15.24 ± 2.85	58.76 ± 4.99	0.00 ± 0.00	0.00 ± 0.00	3.94 ± 0.56	127.50 ± 10.27	142.21 ± 7.62
CELA	11/1/87	10	17.23 ± 2.20	41.56 ± 9.30	0.00 ± 0.00	19.68 ± 4.14	60.67 ± 5.34	0.00 ± 0.00	0.00 ± 0.00	3.77 ± 0.55	142.91 ± 11.07	171.13 ± 7.79
CELA	11/1/87	14	1.42 ± 1.01	19.77 ± 5.03	0.00 ± 0.00	18.68 ± 2.50	16.78 ± 2.36	0.00 ± 0.00	0.00 ± 0.00	4.77 ± 0.54	86.23 ± 7.49	17.82 ± 9.54
CELA	11/1/87	18	2.08 ± 0.61	15.92 ± 3.64	0.00 ± 0.00	5.80 ± 0.44	12.33 ± 1.55	0.00 ± 0.00	0.00 ± 0.00	3.38 ± 0.28	39.51 ± 4.08	43.93 ± 4.70
CELA	12/03/87	00	12.45 ± 2.55	53.09 ± 10.23	0.00 ± 0.00	7.19 ± 2.63	71.41 ± 6.25	0.00 ± 0.00	0.00 ± 0.00	1.51 ± 0.32	145.65 ± 12.38	179.31 ± 5.15
CELA	12/03/87	06	13.33 ± 3.47	75.73 ± 13.31	0.00 ± 0.00	3.46 ± 4.47	43.91 ± 6.64	0.00 ± 0.00	0.00 ± 0.00	3.85 ± 0.54	131.57 ± 11.55	158.19 ± 7.68
CELA	12/03/87	10	6.32 ± 2.44	48.64 ± 9.80	0.00 ± 0.00	0.00 ± 0.00	7.20 ± 1.63	0.00 ± 0.00	0.00 ± 0.00	0.94 ± 0.23	60.29 ± 7.96	74.27 ± 4.79
CELA	12/03/87	14	6.77 ± 0.94	29.80 ± 6.07	0.00 ± 0.00	0.24 ± 0.22	30.32 ± 3.21	0.00 ± 0.00	0.00 ± 0.00	1.31 ± 0.26	68.44 ± 6.95	72.82 ± 7.29
CELA	12/10/87	14										

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date†	Primary Geological SCE ± σ (ng/m ³)	Molar Vol. Exhaust SCE ± σ (ng/m ³)	Vegetative Burning SCE ± σ (ng/m ³)	Secondary Sulfate SCE ± σ (ng/m ³)	Secondary Nitrate SCE ± σ (ng/m ³)	Secondary (Limestone) SCE ± σ (ng/m ³)	Oil Combustion SCE ± σ (ng/m ³)	Marine Aerosol SCE ± σ (ng/m ³)	Calculated Mass ± σ (ng/m ³)	Measured Mass ± σ (ng/m ³)	Unexplained Mass ± σ (ng/m ³)
CELA	12/1/87	18	12.50 ± 1.07	30.60 ± 8.42	6.00 ± 0.00	0.00 ± 0.00	22.41 ± 4.63	0.00 ± 0.00	0.00 ± 0.00	1.22 ± 0.27	91.13 ± 9.67	113.99 ± 4.86
CELA	12/1/87	60	8.90 ± 2.29	33.90 ± 7.94	6.00 ± 0.00	0.00 ± 0.00	18.25 ± 4.12	0.00 ± 0.00	1.30 ± 0.28	82.34 ± 9.25	91.56 ± 5.02	15.72 ± 10.52
CELA	12/1/87	65	12.31 ± 1.40	72.99 ± 10.70	6.00 ± 0.00	0.00 ± 0.00	13.59 ± 5.51	0.00 ± 0.00	1.65 ± 0.36	100.54 ± 12.20	117.40 ± 7.59	16.86 ± 14.37
CELA	12/1/87	10	13.23 ± 1.20	53.21 ± 9.16	6.00 ± 0.00	0.49 ± 0.40	69.51 ± 6.22	0.00 ± 0.00	2.20 ± 0.38	138.62 ± 11.16	163.53 ± 7.55	24.91 ± 13.47
CELA	12/1/87	14	12.66 ± 1.18	62.66 ± 11.94	6.00 ± 0.00	11.81 ± 4.01	80.30 ± 7.08	0.00 ± 0.00	2.23 ± 0.41	169.66 ± 14.11	191.71 ± 7.68	28.05 ± 16.06
CELA	12/1/87	18	17.35 ± 1.41	106.33 ± 15.53	6.00 ± 0.00	0.11 ± 0.78	52.56 ± 8.78	0.00 ± 0.00	1.32 ± 0.42	178.15 ± 17.92	180.39 ± 5.24	2.24 ± 18.67
CLAR	06/19/87	60	8.90 ± 0.95	11.97 ± 3.07	0.00 ± 0.00	4.35 ± 0.37	7.39 ± 1.44	0.00 ± 0.00	6.13 ± 0.69	38.75 ± 3.65	54.96 ± 5.06	16.21 ± 6.24
CLAR	06/19/87	65	24.84 ± 1.32	13.70 ± 3.61	0.00 ± 0.00	4.01 ± 0.46	7.36 ± 1.55	0.00 ± 0.00	4.06 ± 0.73	53.97 ± 4.27	71.24 ± 6.24	17.27 ± 7.56
CLAR	06/19/87	69	15.30 ± 1.37	15.01 ± 4.28	0.00 ± 0.00	6.02 ± 0.59	1.07 ± 1.35	0.00 ± 0.00	8.07 ± 1.20	45.47 ± 4.89	55.97 ± 7.28	10.50 ± 8.77
CLAR	06/19/87	13	16.22 ± 0.97	12.95 ± 4.10	0.00 ± 0.00	6.80 ± 0.61	0.36 ± 1.00	0.00 ± 0.00	9.04 ± 1.24	41.37 ± 4.59	61.66 ± 6.92	14.29 ± 8.30
CLAR	06/19/87	17	10.30 ± 0.79	11.31 ± 2.79	0.00 ± 0.00	4.75 ± 0.31	2.76 ± 1.04	0.00 ± 0.00	10.32 ± 0.80	39.43 ± 3.24	51.88 ± 3.74	13.45 ± 4.95
CLAR	06/24/87	60	9.80 ± 0.60	6.89 ± 2.02	0.00 ± 0.00	9.53 ± 0.63	19.84 ± 1.58	0.00 ± 0.00	5.45 ± 0.82	51.52 ± 2.89	69.32 ± 5.16	17.80 ± 5.91
CLAR	06/24/87	65	17.44 ± 0.90	11.47 ± 3.17	0.00 ± 0.00	9.92 ± 0.97	20.70 ± 2.00	0.00 ± 0.00	3.47 ± 0.92	62.99 ± 4.10	80.25 ± 6.51	17.26 ± 7.69
CLAR	06/24/87	69	24.56 ± 1.08	18.77 ± 4.40	0.00 ± 0.00	18.10 ± 2.65	12.60 ± 2.49	0.00 ± 0.00	5.56 ± 1.02	78.59 ± 5.70	113.33 ± 6.89	33.74 ± 8.94
CLAR	06/24/87	13	24.31 ± 1.67	22.36 ± 6.37	0.00 ± 0.00	22.04 ± 3.40	3.05 ± 0.97	0.00 ± 0.00	6.21 ± 1.04	71.99 ± 7.18	116.22 ± 6.88	40.23 ± 9.94
CLAR	06/24/87	17	14.36 ± 0.67	11.60 ± 2.94	0.00 ± 0.00	11.37 ± 0.87	10.90 ± 1.43	0.00 ± 0.00	6.71 ± 0.71	54.97 ± 3.55	72.09 ± 3.79	17.12 ± 5.19
CLAR	06/24/87	60	11.71 ± 0.93	10.24 ± 3.06	0.00 ± 0.00	12.06 ± 0.96	19.39 ± 1.77	0.00 ± 0.00	4.68 ± 0.93	58.08 ± 3.92	76.04 ± 5.36	17.96 ± 6.64
CLAR	06/25/87	65	47.83 ± 2.67	53.95 ± 9.04	0.00 ± 0.00	9.23 ± 1.54	21.90 ± 4.21	0.00 ± 0.00	6.41 ± 1.30	139.36 ± 10.46	131.45 ± 6.63	-1.91 ± 12.40
CLAR	06/25/87	69	27.41 ± 1.72	24.87 ± 6.44	0.00 ± 0.00	17.81 ± 2.71	15.57 ± 2.76	0.00 ± 0.00	5.37 ± 1.16	90.23 ± 7.51	119.87 ± 6.87	29.64 ± 10.18
CLAR	06/25/87	13	19.46 ± 0.97	15.45 ± 3.95	0.00 ± 0.00	11.27 ± 1.14	1.95 ± 0.93	0.00 ± 0.00	5.94 ± 1.11	54.07 ± 4.46	80.45 ± 6.80	26.38 ± 8.13
CLAR	06/25/87	17	15.51 ± 0.68	10.88 ± 2.93	0.00 ± 0.00	10.16 ± 0.73	7.91 ± 1.35	0.00 ± 0.00	3.72 ± 0.66	48.17 ± 3.48	58.17 ± 3.79	10.00 ± 5.13
CLAR	07/13/87	60	7.75 ± 0.56	7.35 ± 2.06	0.00 ± 0.00	3.24 ± 0.20	0.91 ± 0.55	0.00 ± 0.00	0.99 ± 0.10	19.33 ± 2.27	24.46 ± 5.14	5.13 ± 5.62
CLAR	07/13/87	65	26.90 ± 1.66	23.41 ± 5.88	0.00 ± 0.00	3.83 ± 0.71	6.50 ± 2.26	0.00 ± 0.00	1.50 ± 0.64	62.21 ± 6.61	75.31 ± 6.62	13.10 ± 9.36
CLAR	07/13/87	69	11.50 ± 0.80	17.22 ± 4.19	0.00 ± 0.00	4.50 ± 0.61	2.12 ± 0.74	0.00 ± 0.00	0.00 ± 0.00	41.33 ± 5.32	66.00 ± 6.91	24.67 ± 8.72
CLAR	07/13/87	13	12.36 ± 0.82	17.66 ± 3.91	0.00 ± 0.00	7.90 ± 0.82	0.67 ± 0.93	0.00 ± 0.00	2.74 ± 0.82	31.89 ± 3.76	7.04 ± 4.31	
CLAR	07/13/87	17	10.90 ± 0.53	7.42 ± 1.90	0.00 ± 0.00	3.54 ± 0.18	0.00 ± 0.00	0.00 ± 0.00	3.00 ± 0.53	25.15 ± 2.63	31.15 ± 5.33	6.00 ± 5.94
CLAR	07/13/87	60	8.47 ± 0.56	7.97 ± 2.27	0.00 ± 0.00	3.50 ± 0.23	1.00 ± 0.91	0.00 ± 0.00	4.21 ± 0.58	47.17 ± 6.89	51.69 ± 8.18	
CLAR	07/13/87	65	15.89 ± 0.88	14.33 ± 3.69	0.00 ± 0.00	6.56 ± 0.59	2.80 ± 1.54	0.00 ± 0.00	4.20 ± 0.68	41.78 ± 4.24	50.61 ± 6.64	6.83 ± 7.68
CLAR	07/13/87	69	15.65 ± 0.89	16.74 ± 4.08	0.00 ± 0.00	10.77 ± 1.12	1.41 ± 0.88	0.00 ± 0.00	3.05 ± 0.83	47.62 ± 4.49	65.90 ± 6.80	18.28 ± 8.15
CLAR	07/13/87	13	17.00 ± 0.93	23.79 ± 5.45	0.00 ± 0.00	17.05 ± 2.44	0.00 ± 0.00	0.00 ± 0.00	2.84 ± 0.67	60.68 ± 5.80	91.24 ± 6.98	30.56 ± 9.08

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ <u>(μg/m³)</u>	Primary Emissions SCE ± σ <u>(μg/m³)</u>	Primary Vegetative Burning SCE ± σ <u>(μg/m³)</u>	Secondary Sulfate SCE ± σ <u>(μg/m³)</u>	Secondary Nitrate SCE ± σ <u>(μg/m³)</u>	Secondary (Lithogenic) SCE ± σ <u>(μg/m³)</u>	Oil Combustion SCE ± σ <u>(μg/m³)</u>	Aerosol SCE ± σ <u>(μg/m³)</u>	Marine Calculated Mass ± σ <u>(μg/m³)</u>	Measured Mass ± σ <u>(μg/m³)</u>	Unexplained Mass ± σ <u>(μg/m³)</u>
CLAR 07/14/87 17 10.37 ± 0.40	13.40 ± 2.99	0.00 ± 0.00	8.34 ± 0.58	4.19 ± 1.12	0.00 ± 0.00	0.00 ± 0.00	3.55 ± 0.49	39.85 ± 3.38	49.35 ± 3.81	9.30 ± 5.09
CLAR 07/15/87 00 8.61 ± 0.37	13.95 ± 3.24	0.00 ± 0.00	11.67 ± 0.93	9.27 ± 1.27	0.00 ± 0.00	0.00 ± 0.00	3.91 ± 0.72	47.40 ± 3.81	55.71 ± 5.33	8.31 ± 6.35
CLAR 07/15/87 03 14.11 ± 0.90	15.85 ± 4.22	0.80 ± 0.00	14.16 ± 1.47	13.53 ± 2.04	0.00 ± 0.00	0.00 ± 0.00	3.67 ± 0.86	61.31 ± 5.02	68.73 ± 6.70	7.42 ± 8.37
CLAR 07/15/87 09 17.92 ± 0.98	15.99 ± 4.48	0.00 ± 0.00	15.05 ± 1.50	5.07 ± 1.62	0.00 ± 0.00	0.00 ± 0.00	3.82 ± 0.80	57.85 ± 5.03	69.46 ± 6.95	11.61 ± 8.58
CLAR 07/15/87 13 15.95 ± 0.98	20.86 ± 5.10	0.80 ± 0.00	12.85 ± 1.49	5.63 ± 1.85	0.00 ± 0.00	0.00 ± 0.00	1.16 ± 0.69	56.45 ± 5.71	66.94 ± 6.80	10.49 ± 8.88
CLAR 07/15/87 17 11.81 ± 0.58	12.34 ± 2.26	0.80 ± 0.00	6.18 ± 0.52	6.63 ± 1.39	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	38.96 ± 3.67	48.46 ± 3.79	9.30 ± 5.28
CLAR 08/27/87 00 14.56 ± 0.97	10.67 ± 2.73	0.00 ± 0.00	7.92 ± 0.53	6.18 ± 1.25	0.00 ± 0.00	0.00 ± 0.00	5.37 ± 0.69	44.11 ± 3.33	56.07 ± 5.12	11.96 ± 6.11
CLAR 08/27/87 03 60.75 ± 2.65	17.41 ± 4.41	0.00 ± 0.00	8.35 ± 0.94	12.47 ± 2.21	0.00 ± 0.00	0.00 ± 0.00	7.19 ± 1.03	106.17 ± 5.55	113.68 ± 6.61	7.51 ± 8.63
CLAR 08/27/87 09 27.94 ± 1.63	20.20 ± 5.60	0.00 ± 0.00	8.70 ± 1.05	2.10 ± 2.11	0.00 ± 0.00	0.00 ± 0.00	6.10 ± 0.85	65.11 ± 5.83	89.22 ± 6.73	24.11 ± 8.90
CLAR 08/27/87 13 23.04 ± 1.63	21.26 ± 5.04	0.00 ± 0.00	8.51 ± 1.07	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.05 ± 0.89	58.86 ± 6.27	89.70 ± 6.92	30.84 ± 9.34
CLAR 08/27/87 17 18.32 ± 0.91	9.81 ± 2.57	0.00 ± 0.00	7.88 ± 0.48	1.29 ± 1.11	0.00 ± 0.00	0.00 ± 0.00	6.09 ± 0.65	43.39 ± 3.11	55.06 ± 3.80	11.67 ± 4.91
CLAR 08/28/87 00 19.08 ± 1.13	12.59 ± 3.26	0.00 ± 0.00	7.72 ± 0.58	8.60 ± 1.87	0.00 ± 0.00	0.00 ± 0.00	4.20 ± 0.68	52.19 ± 4.11	60.37 ± 5.32	8.18 ± 6.72
CLAR 08/28/87 03 42.41 ± 1.76	17.74 ± 4.55	0.80 ± 0.00	7.43 ± 0.81	13.12 ± 2.43	0.00 ± 0.00	0.00 ± 0.00	3.56 ± 0.99	84.46 ± 5.63	95.82 ± 6.69	11.36 ± 8.74
CLAR 08/28/87 09 27.57 ± 1.61	19.32 ± 5.01	0.80 ± 0.00	9.30 ± 1.05	5.79 ± 2.54	0.00 ± 0.00	0.00 ± 0.00	4.58 ± 1.10	66.76 ± 6.05	90.16 ± 6.90	23.40 ± 9.18
CLAR 08/28/87 13 22.50 ± 1.64	22.08 ± 5.34	0.00 ± 0.00	11.83 ± 2.25	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.02 ± 0.86	68.43 ± 5.87	104.68 ± 6.92	36.25 ± 9.07
CLAR 08/29/87 00 20.25 ± 1.03	13.02 ± 3.25	0.00 ± 0.00	10.84 ± 0.85	9.15 ± 1.90	0.00 ± 0.00	0.00 ± 0.00	5.28 ± 0.82	58.54 ± 4.11	68.66 ± 3.85	10.12 ± 5.63
CLAR 08/29/87 03 29.76 ± 1.62	20.01 ± 4.99	0.00 ± 0.00	10.68 ± 1.20	17.09 ± 2.56	0.00 ± 0.00	0.00 ± 0.00	5.27 ± 1.02	81.01 ± 6.04	86.29 ± 5.39	3.28 ± 8.10
CLAR 08/29/87 09 21.56 ± 1.46	17.70 ± 4.46	0.00 ± 0.00	13.62 ± 1.55	27.06 ± 2.81	0.00 ± 0.00	0.00 ± 0.00	4.34 ± 1.03	84.56 ± 5.74	98.70 ± 6.73	14.14 ± 8.85
CLAR 08/29/87 13 22.76 ± 1.25	17.88 ± 4.61	0.00 ± 0.00	24.91 ± 3.59	23.19 ± 3.10	0.00 ± 0.00	0.00 ± 0.00	6.19 ± 1.33	94.93 ± 6.14	115.39 ± 6.85	20.46 ± 9.20
CLAR 08/29/87 17 17.98 ± 1.48	19.18 ± 4.71	0.80 ± 0.00	29.57 ± 4.74	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.93 ± 0.98	70.65 ± 5.51	103.00 ± 6.88	32.35 ± 8.81
CLAR 08/29/87 17 18.60 ± 1.03	12.37 ± 3.12	0.00 ± 0.00	21.58 ± 2.66	7.19 ± 1.73	0.00 ± 0.00	0.00 ± 0.00	4.73 ± 0.65	64.49 ± 4.11	81.49 ± 3.82	17.00 ± 5.61
CLAR 09/02/87 00 8.65 ± 0.79	5.98 ± 2.27	0.00 ± 0.00	2.39 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.50 ± 0.45	17.53 ± 2.49	24.61 ± 5.33	7.08 ± 5.88
CLAR 09/02/87 03 51.70 ± 1.67	6.34 ± 2.10	0.00 ± 0.00	2.09 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.31 ± 0.68	61.44 ± 2.82	78.48 ± 6.66	17.04 ± 7.23
CLAR 09/02/87 09 29.95 ± 1.34	10.59 ± 3.44	0.00 ± 0.00	2.00 ± 0.28	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.68 ± 0.58	44.02 ± 3.79	75.28 ± 6.71	31.26 ± 7.71
CLAR 09/02/87 13 15.25 ± 1.18	12.04 ± 3.23	0.00 ± 0.00	4.81 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.38 ± 0.64	35.46 ± 3.57	55.02 ± 6.71	19.56 ± 7.60
CLAR 09/02/87 17 16.12 ± 0.85	6.75 ± 2.63	0.00 ± 0.00	5.08 ± 0.28	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.81 ± 0.69	35.76 ± 2.93	53.41 ± 3.79	17.65 ± 4.79
CLAR 09/03/87 00 17.12 ± 1.05	11.28 ± 4.84	0.00 ± 0.00	5.68 ± 0.55	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.92 ± 0.83	40.20 ± 5.08	54.41 ± 5.05	14.21 ± 7.16
CLAR 09/03/87 03 42.99 ± 1.94	21.79 ± 5.12	0.00 ± 0.00	5.47 ± 0.92	3.07 ± 0.99	0.00 ± 0.00	0.00 ± 0.00	5.60 ± 1.19	78.92 ± 5.79	102.27 ± 7.17	23.35 ± 9.22
CLAR 09/03/87 09 26.32 ± 1.47	16.24 ± 4.02	0.00 ± 0.00	7.60 ± 0.78	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.33 ± 1.04	87.71 ± 6.20	27.72 ± 7.67	
CLAR 09/03/87 13 23.17 ± 1.23	7.89 ± 2.47	0.00 ± 0.00	9.10 ± 0.61	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.97 ± 1.06	47.13 ± 3.04	63.06 ± 6.96	15.93 ± 7.61

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Primary Mater Vch. Exhaust SCE ± σ (μg/m ³)	Vegetative Sulfate SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Construction (Limestone) SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)			
CLAR	06/03/87 17	10.64 ± 0.52	5.91 ± 1.54	0.00 ± 0.00	6.73 ± 0.33	2.78 ± 0.77	0.00 ± 0.00	7.30 ± 0.68	32.75 ± 2.02	42.43 ± 3.79	9.48 ± 4.29	
HAWT	06/19/87 00	4.74 ± 0.68	4.48 ± 2.09	0.00 ± 0.00	2.03 ± 0.16	2.59 ± 0.62	0.00 ± 0.00	12.30 ± 0.90	26.35 ± 2.50	39.98 ± 5.39	13.23 ± 5.94	
HAWT	06/19/87 05	15.94 ± 1.65	8.76 ± 2.51	0.00 ± 0.00	8.23 ± 0.54	3.56 ± 0.77	0.00 ± 0.00	12.84 ± 0.99	49.37 ± 3.10	69.93 ± 6.56	20.56 ± 7.26	
HAWT	06/19/87 09	5.52 ± 0.78	5.60 ± 2.67	0.00 ± 0.00	8.71 ± 0.49	3.15 ± 0.84	0.00 ± 0.00	10.87 ± 0.91	33.25 ± 3.14	51.23 ± 7.00	17.98 ± 7.67	
HAWT	06/19/87 13	3.03 ± 0.77	3.77 ± 2.47	0.00 ± 0.00	4.28 ± 0.28	0.00 ± 0.00	0.00 ± 0.00	9.76 ± 0.87	20.84 ± 2.80	34.46 ± 7.47	13.62 ± 7.98	
HAWT	06/19/87 17	1.79 ± 0.34	3.19 ± 1.40	0.00 ± 0.00	4.62 ± 0.17	3.25 ± 0.65	0.00 ± 0.00	8.31 ± 0.76	21.16 ± 1.82	33.90 ± 3.92	11.84 ± 4.32	
HAWT	06/24/87 00	10.73 ± 0.66	6.14 ± 2.47	0.00 ± 0.00	23.56 ± 2.52	0.00 ± 0.00	0.00 ± 0.00	14.01 ± 1.08	56.44 ± 3.24	86.62 ± 5.66	30.18 ± 6.52	
HAWT	06/24/87 05	17.50 ± 1.07	9.63 ± 2.86	0.00 ± 0.00	40.26 ± 6.61	7.29 ± 2.01	0.00 ± 0.00	16.56 ± 1.37	91.24 ± 4.73	96.82 ± 6.40	5.58 ± 7.96	
HAWT	06/24/87 09	12.36 ± 0.99	7.15 ± 2.32	0.00 ± 0.00	36.78 ± 5.44	0.00 ± 0.00	0.00 ± 0.00	10.40 ± 1.05	68.69 ± 3.66	92.23 ± 7.17	23.54 ± 8.03	
HAWT	06/24/87 13	8.29 ± 0.94	7.33 ± 2.34	0.00 ± 0.00	22.18 ± 2.29	0.00 ± 0.00	0.00 ± 0.00	5.11 ± 1.12	42.91 ± 3.18	56.71 ± 7.06	13.80 ± 7.74	
HAWT	06/24/87 17	5.34 ± 0.53	4.31 ± 1.36	0.00 ± 0.00	16.23 ± 0.98	0.00 ± 0.00	0.00 ± 0.00	5.36 ± 0.56	31.44 ± 1.87	54.94 ± 3.91	21.50 ± 4.33	
HAWT	06/25/87 00	6.65 ± 0.73	7.46 ± 2.79	0.00 ± 0.00	25.61 ± 2.88	5.69 ± 1.40	0.00 ± 0.00	5.64 ± 0.72	51.05 ± 3.73	65.02 ± 5.85	13.97 ± 6.94	
HAWT	06/25/87 05	14.18 ± 0.79	7.71 ± 2.35	0.00 ± 0.00	31.30 ± 4.38	2.70 ± 1.34	0.00 ± 0.00	9.25 ± 1.10	65.54 ± 3.72	84.15 ± 6.64	18.61 ± 7.61	
HAWT	06/25/87 09	12.27 ± 0.78	5.47 ± 1.97	0.00 ± 0.00	24.95 ± 3.35	0.00 ± 0.00	0.00 ± 0.00	5.42 ± 0.92	48.11 ± 2.94	76.94 ± 7.06	28.83 ± 7.65	
HAWT	06/25/87 13	5.56 ± 0.67	6.22 ± 2.06	0.00 ± 0.00	17.46 ± 1.47	0.00 ± 0.00	0.00 ± 0.00	2.25 ± 0.64	31.48 ± 2.59	45.49 ± 7.11	14.01 ± 7.57	
HAWT	06/25/87 17	2.73 ± 0.35	3.38 ± 1.56	0.00 ± 0.00	12.55 ± 0.72	0.99 ± 0.46	0.00 ± 0.00	2.23 ± 0.50	21.91 ± 1.95	37.86 ± 3.95	15.95 ± 4.41	
HAWT	07/13/87 00	0.32 ± 0.23	0.41 ± 0.42	0.00 ± 0.00	3.49 ± 0.14	1.51 ± 0.59	0.00 ± 0.00	0.00 ± 0.00	5.55 ± 0.57	11.27 ± 1.05	20.57 ± 5.47	9.30 ± 5.57
HAWT	07/13/87 05	2.50 ± 0.48	1.11 ± 1.89	0.00 ± 0.00	6.85 ± 0.32	0.00 ± 0.00	0.00 ± 0.00	6.32 ± 0.84	17.19 ± 2.22	26.29 ± 6.74	9.10 ± 7.10	
HAWT	07/13/87 09	2.46 ± 0.75	6.21 ± 2.56	0.00 ± 0.00	8.03 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	3.97 ± 0.70	20.67 ± 2.86	30.40 ± 6.95	9.73 ± 7.52	
HAWT	07/13/87 13	1.44 ± 0.50	2.48 ± 2.01	0.00 ± 0.00	5.81 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	3.85 ± 0.79	13.58 ± 2.31	17.96 ± 7.05	4.38 ± 7.42	
HAWT	07/13/87 17	3.37 ± 0.30	0.98 ± 0.55	0.00 ± 0.00	4.83 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	8.02 ± 0.65	17.19 ± 1.00	25.48 ± 3.94	8.29 ± 4.06	
HAWT	07/14/87 00	2.72 ± 0.36	1.13 ± 1.50	0.00 ± 0.00	9.06 ± 0.40	1.34 ± 0.61	0.00 ± 0.00	4.94 ± 0.56	19.19 ± 1.89	27.37 ± 5.45	8.18 ± 5.77	
HAWT	07/14/87 05	9.82 ± 0.84	6.65 ± 2.67	0.00 ± 0.00	23.71 ± 2.66	0.00 ± 0.00	0.00 ± 0.00	5.09 ± 0.73	45.29 ± 3.35	51.78 ± 6.97	6.49 ± 7.73	
HAWT	07/14/87 09	6.66 ± 0.84	7.12 ± 2.94	0.00 ± 0.00	25.24 ± 2.83	0.00 ± 0.00	0.00 ± 0.00	4.71 ± 0.78	43.72 ± 3.61	54.96 ± 7.02	11.24 ± 7.89	
HAWT	07/14/87 13	4.93 ± 0.85	5.18 ± 1.88	0.00 ± 0.00	7.97 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	2.82 ± 0.68	20.89 ± 2.30	31.63 ± 6.98	10.76 ± 7.35	
HAWT	07/14/87 17	6.50 ± 0.44	3.01 ± 1.08	0.00 ± 0.00	7.71 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	3.92 ± 0.53	21.54 ± 1.41	27.39 ± 3.97	5.85 ± 4.21	
HAWT	07/15/87 00	5.49 ± 0.81	4.10 ± 1.41	0.00 ± 0.00	14.63 ± 0.87	0.00 ± 0.00	0.00 ± 0.00	5.73 ± 0.62	29.95 ± 1.94	42.43 ± 5.42	12.48 ± 5.76	
HAWT	07/15/87 05	12.48 ± 0.79	3.98 ± 1.97	0.00 ± 0.00	19.08 ± 1.43	0.00 ± 0.00	0.00 ± 0.00	4.96 ± 0.89	42.51 ± 2.64	55.03 ± 7.06	12.52 ± 7.54	
HAWT	07/15/87 09	10.50 ± 0.73	6.36 ± 2.04	0.00 ± 0.00	16.85 ± 1.30	0.00 ± 0.00	0.00 ± 0.00	2.91 ± 0.63	36.62 ± 2.56	46.74 ± 6.87	10.12 ± 7.33	
HAWT	07/15/87 13	3.18 ± 0.49	1.35 ± 0.87	0.00 ± 0.00	6.36 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	0.86 ± 0.55	11.35 ± 1.31	20.87 ± 7.17	9.12 ± 7.29	

Table B-2 (continued)
Individual Source Contributions to PM_{10} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ ($\mu\text{g/m}^3$)	Primary Soil Enriched SCE ± σ ($\mu\text{g/m}^3$)	Primary Vegetative Bearing SCE ± σ ($\mu\text{g/m}^3$)	Secondary Soil/soil SCE ± σ ($\mu\text{g/m}^3$)	Secondary (Limestone) SCE ± σ ($\mu\text{g/m}^3$)	Construction SCE ± σ ($\mu\text{g/m}^3$)	ON SCE ± σ ($\mu\text{g/m}^3$)	Combustion SCE ± σ ($\mu\text{g/m}^3$)	Aerosol SCE ± σ ($\mu\text{g/m}^3$)	Marine SCE ± σ ($\mu\text{g/m}^3$)	Calculated Mass ± σ ($\mu\text{g/m}^3$)	Measured Mass ± σ ($\mu\text{g/m}^3$)	Unexplained Mass ± σ ($\mu\text{g/m}^3$)	
HAWT 07/15/87 17 3.19 ± 0.39	3.57 ± 1.18	0.00 ± 0.00	11.40 ± 0.56	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.16 ± 0.34	19.32 ± 1.31	28.00 ± 3.62	8.68 ± 4.11			
HAWT 08/21/87 60 3.64 ± 0.49	4.04 ± 1.36	0.00 ± 0.00	6.78 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.86 ± 0.68	21.33 ± 1.72	30.65 ± 5.24	9.32 ± 5.52			
HAWT 08/21/87 65 6.40 ± 0.91	6.18 ± 2.00	0.00 ± 0.00	7.45 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.95 ± 1.07	32.98 ± 2.55	41.51 ± 6.70	8.53 ± 7.24			
HAWT 08/21/87 69 7.27 ± 0.70	5.26 ± 1.83	0.00 ± 0.00	10.94 ± 0.68	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.58 ± 0.96	30.92 ± 2.36	40.59 ± 7.12	9.67 ± 7.30			
HAWT 08/21/87 13 1.60 ± 0.88	4.12 ± 1.67	0.00 ± 0.00	9.52 ± 0.58	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.67 ± 0.75	26.22 ± 2.20	0.00 ± 0.00	0.00 ± 0.00			
HAWT 08/21/87 17 5.59 ± 0.42	2.85 ± 1.00	0.00 ± 0.00	9.04 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.29 ± 0.56	21.82 ± 1.39	30.42 ± 3.57	6.60 ± 3.83			
HAWT 08/24/87 00 8.30 ± 0.57	10.73 ± 4.28	0.00 ± 0.00	12.37 ± 1.50	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.87 ± 0.84	39.41 ± 4.53	42.02 ± 5.36	2.55 ± 7.02			
HAWT 08/24/87 65 11.33 ± 0.76	7.02 ± 2.16	0.00 ± 0.00	10.30 ± 1.84	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	7.19 ± 0.95	44.83 ± 2.85	50.42 ± 6.84	5.59 ± 7.41			
HAWT 08/24/87 69 11.33 ± 0.77	9.21 ± 2.35	0.00 ± 0.00	25.10 ± 3.09	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.63 ± 0.95	51.77 ± 3.32	62.12 ± 8.23	10.35 ± 8.95			
HAWT 08/24/87 13 7.82 ± 0.72	5.68 ± 1.96	0.00 ± 0.00	11.21 ± 0.77	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.84 ± 0.94	30.54 ± 2.48	36.81 ± 7.26	6.27 ± 7.69			
HAWT 08/24/87 17 16.59 ± 0.52	11.98 ± 4.71	0.00 ± 0.00	12.33 ± 1.17	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.00 ± 0.74	43.91 ± 4.92	51.29 ± 3.91	7.38 ± 6.28			
HAWT 08/29/87 00 10.30 ± 0.90	11.44 ± 3.83	0.00 ± 0.00	27.91 ± 3.95	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	11.16 ± 1.11	61.44 ± 3.94	73.84 ± 5.65	12.40 ± 7.05			
HAWT 08/29/87 05 22.50 ± 1.23	9.97 ± 2.79	0.00 ± 0.00	34.49 ± 8.63	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	18.41 ± 1.70	85.37 ± 4.63	101.30 ± 6.83	15.93 ± 8.25			
HAWT 08/29/87 69 8.62 ± 1.03	10.69 ± 2.96	0.00 ± 0.00	36.93 ± 5.83	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	4.21 ± 0.90	59.84 ± 4.99	80.80 ± 7.10	20.96 ± 8.19			
HAWT 08/29/87 13 3.44 ± 0.60	6.02 ± 2.00	0.00 ± 0.00	25.36 ± 2.80	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.77 ± 0.52	36.60 ± 2.77	45.64 ± 6.87	16.04 ± 7.41			
HAWT 08/29/87 17 5.30 ± 0.25	2.31 ± 0.82	0.00 ± 0.00	12.04 ± 0.65	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.41 ± 0.51	17.15 ± 1.31	17.51 ± 4.04	0.36 ± 4.25			
HAWT 09/02/87 00 5.72 ± 0.55	7.56 ± 2.10	0.00 ± 0.00	6.87 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	16.97 ± 1.14	37.12 ± 2.56	49.52 ± 5.57	12.40 ± 6.13			
HAWT 09/02/87 05 16.61 ± 0.88	8.38 ± 2.42	0.00 ± 0.00	7.63 ± 0.50	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	17.05 ± 1.25	49.69 ± 2.97	60.25 ± 6.95	10.56 ± 7.56			
HAWT 09/02/87 09 13.41 ± 2.80	7.38 ± 2.27	0.00 ± 0.00	8.09 ± 0.56	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	11.69 ± 1.02	40.51 ± 2.35	50.41 ± 6.85	9.90 ± 7.38			
HAWT 09/02/87 17 6.74 ± 0.45	4.93 ± 1.45	0.00 ± 0.00	6.69 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.17 ± 0.74	28.53 ± 1.79	37.65 ± 4.01	9.12 ± 4.39			
HAWT 09/02/87 60 7.00 ± 0.59	8.06 ± 2.26	0.00 ± 0.00	14.88 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	13.45 ± 1.06	43.40 ± 2.83	53.68 ± 5.61	10.28 ± 6.28			
HAWT 09/03/87 65 32.53 ± 1.52	14.53 ± 3.67	0.00 ± 0.00	19.01 ± 2.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.76 ± 1.18	75.83 ± 4.43	80.67 ± 6.93	4.84 ± 8.22			
HAWT 09/03/87 69 13.61 ± 0.80	8.05 ± 2.40	0.00 ± 0.00	15.26 ± 1.30	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.92 ± 1.00	45.83 ± 2.98	50.40 ± 6.78	5.13 ± 6.03			
HAWT 09/03/87 06 15.06 ± 1.45	23.97 ± 4.55	0.00 ± 0.00	9.38 ± 0.48	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.21 ± 0.99	28.11 ± 1.84	38.71 ± 6.84	17.75 ± 9.12			
HAWT 09/03/87 13 6.39 ± 0.61	3.13 ± 1.19	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	32.23 ± 1.35	37.97 ± 4.03	5.74 ± 4.39			
HAWT 09/03/87 17 7.75 ± 0.47	3.84 ± 1.24	0.00 ± 0.00	12.24 ± 0.73	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.40 ± 0.71	23.78 ± 4.32	36.89 ± 7.12	13.11 ± 8.50			
HAWT 10/11/87 00 7.52 ± 1.11	17.70 ± 3.19	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	13.36 ± 1.01	15.52 ± 7.30	2.16 ± 7.90			
HAWT 10/11/87 14 1.65 ± 0.88	7.84 ± 2.73	0.00 ± 0.00	0.97 ± 0.15	0.39 ± 0.79	0.00 ± 0.00	0.00 ± 0.00	2.31 ± 0.30	3.59 ± 0.33	31.04 ± 3.95	3.20 ± 6.44			
HAWT 10/11/87 16 7.58 ± 1.05	17.66 ± 3.51	0.00 ± 0.00	1.70 ± 0.18	0.51 ± 1.38	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.59 ± 0.33					

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Vegetative Burning SCE ± σ (μg/m ³)	Secondary Sulfate SCE ± σ (μg/m ³)	Secondary SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)			
HAWT	11/12/87	00	9.49 ± 0.24	41.99 ± 6.30	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.14 ± 0.25	53.52 ± 6.36	56.45 ± 4.93	2.93 ± 8.05	
HAWT	11/12/87	06	21.22 ± 1.30	43.98 ± 7.50	0.00 ± 0.00	0.00 ± 0.00	6.33 ± 3.50	0.00 ± 0.00	0.63 ± 0.33	74.16 ± 8.40	88.00 ± 7.61	13.84 ± 11.33
HAWT	11/12/87	10	14.17 ± 2.02	35.61 ± 7.43	0.00 ± 0.00	9.05 ± 1.92	69.30 ± 8.03	0.00 ± 0.00	3.50 ± 0.46	133.64 ± 11.23	138.71 ± 7.90	25.07 ± 13.73
HAWT	11/12/87	14	4.35 ± 0.99	18.86 ± 4.11	0.00 ± 0.00	5.45 ± 0.55	21.07 ± 1.97	0.00 ± 0.00	4.08 ± 0.48	53.80 ± 4.75	69.43 ± 7.45	15.63 ± 8.84
HAWT	11/12/87	18	3.03 ± 0.61	13.75 ± 3.40	0.00 ± 0.00	3.97 ± 0.36	8.94 ± 1.45	0.00 ± 0.00	5.03 ± 0.37	34.72 ± 3.82	44.91 ± 4.95	10.19 ± 6.25
HAWT	11/13/87	00	3.87 ± 0.65	34.98 ± 6.97	0.00 ± 0.00	12.24 ± 2.24	23.65 ± 4.94	0.00 ± 0.00	4.80 ± 0.48	79.56 ± 8.72	82.24 ± 5.12	2.68 ± 10.11
HAWT	11/13/87	06	16.22 ± 1.21	27.48 ± 6.29	0.00 ± 0.00	16.92 ± 3.01	29.97 ± 3.42	0.00 ± 0.00	3.67 ± 0.44	94.26 ± 7.50	107.38 ± 7.90	13.12 ± 10.89
HAWT	11/13/87	10	15.14 ± 1.13	17.56 ± 4.91	0.00 ± 0.00	19.73 ± 3.01	22.99 ± 2.60	0.00 ± 0.00	4.89 ± 0.53	80.32 ± 5.97	96.84 ± 7.67	16.52 ± 9.72
HAWT	11/13/87	14	6.59 ± 0.91	10.21 ± 3.26	0.00 ± 0.00	7.47 ± 0.62	5.82 ± 1.44	0.00 ± 0.00	6.04 ± 0.58	30.14 ± 3.90	31.48 ± 1.59	7.34 ± 8.49
HAWT	11/13/87	18	1.29 ± 0.60	6.30 ± 1.79	0.00 ± 0.00	2.34 ± 0.10	0.00 ± 0.00	0.00 ± 0.00	6.54 ± 0.46	16.56 ± 1.97	22.64 ± 4.84	6.08 ± 5.23
HAWT	12/03/87	00	10.30 ± 0.79	66.47 ± 12.83	0.00 ± 0.00	2.15 ± 4.42	41.07 ± 6.62	0.00 ± 0.00	2.74 ± 0.37	122.72 ± 14.62	142.64 ± 5.73	19.92 ± 15.70
HAWT	12/03/87	06	22.72 ± 4.25	86.06 ± 16.15	0.00 ± 0.00	3.59 ± 6.35	72.35 ± 8.71	0.00 ± 0.00	2.16 ± 0.52	188.89 ± 19.01	224.00 ± 8.37	35.11 ± 20.77
HAWT	12/03/87	10	16.24 ± 2.44	47.04 ± 9.31	0.00 ± 0.00	7.76 ± 2.31	70.68 ± 6.03	0.00 ± 0.00	7.41 ± 0.90	149.13 ± 11.49	194.33 ± 8.03	45.20 ± 14.02
HAWT	12/03/87	14	7.41 ± 1.74	27.79 ± 6.26	0.00 ± 0.00	8.83 ± 1.41	37.19 ± 3.30	0.00 ± 0.00	6.91 ± 0.73	88.15 ± 7.42	112.98 ± 8.29	24.83 ± 11.13
HAWT	12/03/87	18	3.93 ± 0.67	25.40 ± 5.45	0.00 ± 0.00	5.14 ± 0.74	19.54 ± 2.45	0.00 ± 0.00	6.47 ± 0.45	60.49 ± 6.10	77.82 ± 5.09	17.33 ± 7.94
HAWT	12/10/87	00	8.63 ± 0.86	71.00 ± 11.04	0.00 ± 0.00	26.61 ± 6.15	0.00 ± 0.00	0.00 ± 0.00	4.68 ± 0.43	107.71 ± 12.68	122.45 ± 5.59	11.74 ± 13.86
HAWT	12/10/87	06	18.55 ± 1.37	59.43 ± 9.78	0.00 ± 0.00	16.66 ± 4.95	0.00 ± 0.00	0.00 ± 0.00	1.04 ± 0.34	95.68 ± 11.05	113.11 ± 8.51	17.43 ± 13.95
HAWT	12/10/87	10	7.93 ± 0.97	22.39 ± 5.54	0.00 ± 0.00	0.54 ± 0.56	17.97 ± 2.47	0.00 ± 0.00	3.45 ± 0.38	52.29 ± 6.19	73.47 ± 7.49	21.16 ± 9.72
HAWT	12/10/87	14	3.36 ± 0.91	16.21 ± 3.97	0.00 ± 0.00	2.67 ± 0.34	19.87 ± 1.94	0.00 ± 0.00	6.34 ± 0.52	48.45 ± 4.58	49.24 ± 7.28	0.79 ± 8.60
HAWT	12/10/87	18	6.49 ± 0.78	34.92 ± 5.33	0.00 ± 0.00	0.93 ± 0.99	59.70 ± 5.69	0.00 ± 0.00	6.75 ± 0.58	107.70 ± 10.81	159.86 ± 7.84	22.36 ± 13.35
HAWT	12/10/87	00	10.73 ± 0.93	70.97 ± 10.81	0.00 ± 0.00	15.65 ± 1.74	31.86 ± 2.67	0.00 ± 0.00	2.54 ± 0.30	68.44 ± 5.58	69.67 ± 7.51	1.23 ± 9.36
HAWT	12/10/87	14	2.19 ± 0.50	16.19 ± 4.59	0.00 ± 0.00	7.03 ± 0.43	3.19 ± 0.78	0.00 ± 0.00	8.01 ± 0.80	35.13 ± 2.47	48.80 ± 7.07	13.67 ± 7.49
HAWT	12/10/87	18	5.61 ± 0.77	41.77 ± 7.06	0.00 ± 0.00	13.29 ± 1.95	18.27 ± 3.65	0.00 ± 0.00	0.63 ± 0.21	128.16 ± 17.18	130.75 ± 7.97	2.59 ± 18.94
LBC	06/19/87	00	5.84 ± 0.51	5.19 ± 1.64	0.00 ± 0.00	1.83 ± 0.15	0.13 ± 0.59	0.00 ± 0.00	12.85 ± 0.90	25.85 ± 2.08	33.61 ± 5.33	7.76 ± 5.72
LBC	06/19/87	06	6.84 ± 0.87	5.92 ± 2.64	0.00 ± 0.00	5.51 ± 0.33	0.73 ± 0.85	0.00 ± 0.00	10.34 ± 0.87	29.53 ± 3.10	52.22 ± 7.00	22.69 ± 7.66
LBC	06/19/87	09	11.97 ± 0.88	4.93 ± 1.88	0.00 ± 0.00	7.03 ± 0.43	3.19 ± 0.78	0.00 ± 0.00	8.01 ± 0.80	35.13 ± 2.47	48.80 ± 7.07	13.67 ± 7.49
LBC	06/19/87	13	12.78 ± 0.91	5.14 ± 2.79	0.00 ± 0.00	5.43 ± 0.34	3.02 ± 0.80	0.00 ± 0.00	7.14 ± 0.78	33.50 ± 3.21	51.06 ± 6.91	17.56 ± 7.62
LBC	06/19/87	17	7.89 ± 0.45	4.32 ± 1.32	0.00 ± 0.00	5.55 ± 0.22	2.34 ± 0.45	0.00 ± 0.00	7.75 ± 0.58	21.84 ± 1.66	40.85 ± 3.83	13.01 ± 4.17

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time†	Primary Geological SCE ± σ [μg/m ³]	Primary Mater Veh. Emissions SCE ± σ [μg/m ³]	Vegetative SCE ± σ [μg/m ³]	Secondary Soil/waste SCE ± σ [μg/m ³]	Secondary Nitrate SCE ± σ [μg/m ³]	Oil (Inhalable) SCE ± σ [μg/m ³]	Combustion SCE ± σ [μg/m ³]	Aerosol SCE ± σ [μg/m ³]	Marine Calculated Mass ± σ [μg/m ³]	Measured Mass ± σ [μg/m ³]	Unexplained Mass ± σ [μg/m ³]
LBCC	06/24/87	0.0	7.59 ± 0.57	4.20 ± 1.46	0.00 ± 0.00	16.35 ± 1.12	0.00 ± 0.00	0.00 ± 0.00	8.77 ± 0.92	36.92 ± 2.14	49.74 ± 5.50	12.82 ± 5.90
LBCC	06/24/87	65	18.12 ± 0.34	4.12 ± 1.40	0.00 ± 0.00	23.58 ± 2.35	3.33 ± 0.94	0.00 ± 0.00	8.75 ± 0.97	49.90 ± 2.87	58.89 ± 6.99	8.99 ± 7.56
LBCC	06/24/87	69	16.69 ± 0.70	3.11 ± 1.57	0.00 ± 0.00	11.30 ± 0.64	0.00 ± 0.00	0.00 ± 0.00	6.84 ± 0.88	32.13 ± 2.13	46.85 ± 6.99	14.72 ± 7.31
LBCC	06/24/87	13	15.72 ± 0.84	3.11 ± 1.63	0.00 ± 0.00	9.03 ± 0.48	3.03 ± 0.79	0.00 ± 0.00	4.73 ± 0.67	36.43 ± 2.24	56.35 ± 7.12	9.92 ± 7.46
LBCC	06/24/87	17	9.50 ± 0.61	3.96 ± 1.32	0.00 ± 0.00	10.82 ± 0.64	3.56 ± 0.89	0.00 ± 0.00	6.02 ± 0.62	33.39 ± 1.99	47.74 ± 3.85	4.35 ± 4.33
LBCC	06/25/87	60	7.14 ± 0.57	3.51 ± 1.36	0.00 ± 0.00	14.30 ± 0.91	2.07 ± 0.77	0.00 ± 0.00	6.08 ± 0.86	33.18 ± 2.13	46.99 ± 5.54	13.81 ± 5.94
LBCC	06/25/87	65	8.91 ± 0.79	4.54 ± 2.46	0.00 ± 0.00	12.13 ± 0.80	0.00 ± 0.00	0.00 ± 0.00	11.55 ± 1.08	37.16 ± 2.98	51.18 ± 6.81	14.02 ± 7.43
LBCC	06/25/87	69	11.27 ± 0.86	3.81 ± 2.54	0.00 ± 0.00	6.78 ± 0.36	0.00 ± 0.00	0.00 ± 0.00	6.81 ± 0.93	28.68 ± 2.93	37.15 ± 7.32	8.47 ± 7.88
LBCC	06/25/87	13	11.37 ± 0.83	2.40 ± 2.54	0.00 ± 0.00	8.82 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	5.19 ± 0.96	27.85 ± 2.95	41.37 ± 7.39	13.52 ± 7.96
LBCC	06/25/87	17	6.78 ± 0.60	5.88 ± 2.64	0.00 ± 0.00	10.95 ± 0.71	7.28 ± 1.03	0.00 ± 0.00	2.59 ± 0.52	33.46 ± 2.57	43.25 ± 4.05	9.77 ± 4.80
LBCC	07/13/87	00	1.63 ± 0.46	7.11 ± 2.20	0.00 ± 0.00	2.87 ± 0.20	0.00 ± 0.00	0.00 ± 0.00	1.30 ± 0.81	16.58 ± 2.55	23.29 ± 5.43	4.71 ± 6.00
LBCC	07/13/87	05	6.37 ± 1.66	14.89 ± 4.18	0.00 ± 0.00	5.13 ± 0.47	1.00 ± 1.38	0.00 ± 0.00	4.12 ± 0.78	31.50 ± 4.66	46.04 ± 6.81	14.54 ± 8.25
LBCC	07/13/87	09	15.09 ± 0.89	10.21 ± 3.37	0.00 ± 0.00	8.03 ± 0.64	0.00 ± 0.00	0.00 ± 0.00	1.67 ± 2.67	39.67 ± 4.03	48.90 ± 7.12	9.23 ± 8.18
LBCC	07/13/87	13	18.83 ± 1.11	3.49 ± 6.62	0.00 ± 0.00	7.69 ± 0.59	0.00 ± 0.00	0.00 ± 0.00	2.40 ± 0.74	31.92 ± 4.82	46.69 ± 7.07	14.87 ± 9.82
LBCC	07/13/87	17	4.94 ± 0.53	5.35 ± 1.68	0.00 ± 0.00	5.87 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	7.71 ± 0.62	5.10 ± 0.50	21.97 ± 2.06	26.32 ± 3.90
LBCC	07/14/87	00	4.72 ± 0.71	6.26 ± 2.49	0.00 ± 0.00	14.27 ± 0.96	0.00 ± 0.00	0.00 ± 0.00	7.16 ± 0.83	32.41 ± 2.92	47.00 ± 6.65	14.59 ± 7.26
LBCC	07/14/87	05	5.26 ± 0.77	7.11 ± 2.63	0.00 ± 0.00	15.53 ± 1.11	0.00 ± 0.00	0.00 ± 0.00	4.56 ± 0.71	32.46 ± 3.05	38.74 ± 6.89	6.28 ± 7.53
LBCC	07/14/87	09	10.81 ± 0.95	9.43 ± 3.25	0.00 ± 0.00	15.96 ± 1.26	0.00 ± 0.00	0.00 ± 0.00	2.71 ± 0.67	38.90 ± 3.66	46.37 ± 7.19	7.47 ± 8.07
LBCC	07/14/87	13	18.98 ± 1.11	7.77 ± 3.06	0.00 ± 0.00	12.70 ± 0.88	0.00 ± 0.00	0.00 ± 0.00	4.97 ± 0.71	42.50 ± 3.55	52.91 ± 6.92	10.41 ± 7.78
LBCC	07/14/87	17	8.18 ± 0.59	3.96 ± 1.70	0.00 ± 0.00	9.40 ± 0.43	0.00 ± 0.00	0.00 ± 0.00	3.60 ± 0.52	25.14 ± 2.00	34.43 ± 4.04	9.29 ± 4.51
LBCC	07/15/87	00	2.01 ± 0.34	2.57 ± 1.60	0.00 ± 0.00	8.84 ± 0.34	0.00 ± 0.00	0.00 ± 0.00	1.66 ± 0.50	15.09 ± 1.84	22.41 ± 5.47	7.34 ± 5.77
LBCC	07/15/87	05	3.86 ± 0.49	3.03 ± 2.07	0.00 ± 0.00	8.59 ± 0.41	0.00 ± 0.00	0.00 ± 0.00	2.35 ± 0.63	17.02 ± 2.34	24.14 ± 6.91	6.32 ± 7.30
LBCC	07/15/87	09	3.42 ± 0.46	2.84 ± 1.94	0.00 ± 0.00	4.71 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	1.31 ± 0.48	12.28 ± 2.13	16.56 ± 6.67	4.28 ± 7.00
LBCC	07/15/87	13	3.09 ± 0.53	3.81 ± 2.12	0.00 ± 0.00	2.57 ± 0.20	0.00 ± 0.00	0.00 ± 0.00	0.10 ± 0.10	9.58 ± 2.25	15.23 ± 7.07	5.65 ± 7.42
LBCC	07/15/87	17	3.76 ± 0.39	3.71 ± 1.49	0.00 ± 0.00	8.49 ± 0.33	0.00 ± 0.00	0.00 ± 0.00	0.84 ± 0.33	16.80 ± 1.69	21.59 ± 3.86	4.79 ± 4.21
LBCC	08/21/87	00	7.46 ± 1.06	13.85 ± 3.28	0.00 ± 0.00	8.29 ± 0.74	0.00 ± 0.00	0.00 ± 0.00	6.87 ± 0.85	36.48 ± 3.66	62.29 ± 5.84	45.81 ± 6.89
LBCC	08/21/87	05	6.40 ± 1.94	7.84 ± 2.56	0.00 ± 0.00	9.54 ± 1.01	0.00 ± 0.00	0.00 ± 0.00	7.44 ± 1.01	46.42 ± 4.31	55.87 ± 6.90	9.45 ± 8.24
LBCC	08/21/87	09	30.35 ± 1.34	5.92 ± 2.05	0.00 ± 0.00	9.84 ± 0.61	0.00 ± 0.00	0.00 ± 0.00	4.75 ± 0.91	50.86 ± 2.75	61.08 ± 6.82	12.22 ± 7.35
LBCC	08/21/87	13	12.52 ± 1.68	5.40 ± 1.57	0.00 ± 0.00	11.29 ± 0.58	0.00 ± 0.00	0.00 ± 0.00	7.69 ± 0.65	36.90 ± 2.00	48.07 ± 3.87	11.17 ± 4.36

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Meter Veh. Exhaust SCE ± σ (μg/m ³)	Vegetative Burning SCE ± σ (μg/m ³)	Secondary Sulfate SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Construction (Limestone) SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)		
Date/Time ^a	Site ^b											
06/24/87	00	6.63 ± 0.57	4.36 ± 1.55	0.00 ± 0.00	10.02 ± 0.65	2.64 ± 0.82	0.00 ± 0.00	0.00 ± 0.00	4.91 ± 0.73	28.57 ± 2.16	39.87 ± 5.53	11.30 ± 5.94
06/25/87	05	16.60 ± 1.20	12.71 ± 3.45	0.00 ± 0.00	18.66 ± 2.34	9.69 ± 1.86	0.00 ± 0.00	0.00 ± 0.00	0.49 ± 1.00	65.60 ± 4.50	77.49 ± 6.97	11.59 ± 8.30
06/26/87	09	23.05 ± 1.39	11.94 ± 3.35	0.00 ± 0.00	32.32 ± 5.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.27 ± 0.79	72.58 ± 4.33	86.57 ± 6.97	13.99 ± 8.21
06/26/87	13	19.66 ± 1.14	8.27 ± 2.33	0.00 ± 0.00	16.51 ± 1.32	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.06 ± 0.86	49.51 ± 3.18	59.53 ± 6.86	10.02 ± 7.56
06/26/87	17	11.65 ± 0.56	7.08 ± 2.11	0.00 ± 0.00	13.30 ± 0.97	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.73 ± 0.65	38.85 ± 2.49	48.93 ± 3.90	10.08 ± 4.63
06/26/87	00	13.24 ± 0.70	7.50 ± 2.05	0.00 ± 0.00	22.03 ± 2.13	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.62 ± 0.96	51.39 ± 2.82	65.64 ± 5.46	14.25 ± 6.15
06/26/87	05	9.71 ± 0.75	5.32 ± 2.66	0.00 ± 0.00	17.54 ± 1.49	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.97	38.63 ± 3.20	51.18 ± 6.83	12.55 ± 7.54
06/26/87	09	7.90 ± 0.67	4.04 ± 1.41	0.00 ± 0.00	21.19 ± 2.02	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.77 ± 0.64	33.01 ± 2.24	46.04 ± 7.17	13.03 ± 7.51
06/26/87	13	8.77 ± 0.91	6.90 ± 2.80	0.00 ± 0.00	17.84 ± 1.51	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.80 ± 0.73	35.42 ± 3.30	43.82 ± 7.08	8.40 ± 7.81
06/26/87	17	6.25 ± 0.43	4.75 ± 1.30	0.00 ± 0.00	10.52 ± 0.56	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.81 ± 0.52	24.83 ± 1.66	31.64 ± 3.87	6.81 ± 4.21
06/26/87	00	9.75 ± 0.82	7.99 ± 2.19	0.00 ± 0.00	7.03 ± 0.44	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	12.75 ± 0.95	37.52 ± 2.63	50.04 ± 5.19	12.52 ± 5.82
06/26/87	05	24.17 ± 1.06	26.87 ± 6.10	0.00 ± 0.00	7.51 ± 1.33	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	12.44 ± 1.18	70.99 ± 6.42	77.01 ± 6.97	6.02 ± 9.48
06/26/87	09	39.91 ± 1.95	24.69 ± 5.89	0.00 ± 0.00	12.06 ± 1.79	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	13.01 ± 1.35	89.67 ± 6.50	121.43 ± 7.01	31.76 ± 9.56
06/26/87	13	21.84 ± 1.91	7.67 ± 2.32	0.00 ± 0.00	7.25 ± 0.46	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	4.27 ± 0.89	41.03 ± 2.80	54.49 ± 7.03	13.46 ± 7.57
06/26/87	17	8.49 ± 0.48	3.71 ± 1.22	0.00 ± 0.00	10.91 ± 0.63	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.82 ± 0.72	33.99 ± 1.71	41.79 ± 3.86	7.86 ± 4.22
06/26/87	00	4.64 ± 0.53	1.74 ± 1.10	0.00 ± 0.00	12.30 ± 0.77	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	12.90 ± 0.99	31.68 ± 1.83	44.17 ± 5.43	12.49 ± 5.73
06/26/87	05	18.53 ± 0.74	4.64 ± 1.75	0.00 ± 0.00	15.10 ± 1.17	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.44 ± 1.12	40.70 ± 2.49	48.44 ± 6.92	7.74 ± 7.35
06/26/87	09	16.96 ± 0.93	4.59 ± 1.82	0.00 ± 0.00	12.62 ± 0.89	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.32 ± 1.00	42.49 ± 2.50	51.01 ± 7.35	6.52 ± 7.76
06/26/87	13	7.33 ± 0.63	1.47 ± 0.83	0.00 ± 0.00	11.23 ± 0.67	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.59 ± 0.79	25.62 ± 1.99	34.08 ± 6.87	8.46 ± 7.05
06/26/87	17	5.23 ± 0.36	2.52 ± 1.26	0.00 ± 0.00	6.29 ± 0.35	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.21 ± 0.52	22.74 ± 1.56	28.84 ± 3.73	6.60 ± 4.04
06/26/87	00	15.86 ± 1.39	21.40 ± 4.33	0.00 ± 0.00	0.28 ± 0.38	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.72 ± 0.27	39.26 ± 4.60	50.52 ± 5.36	11.26 ± 7.06
06/26/87	05	15.53 ± 1.71	23.65 ± 5.33	0.00 ± 0.00	0.03 ± 0.36	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.29 ± 0.34	40.51 ± 5.66	53.90 ± 7.70	13.39 ± 9.56
06/26/87	09	4.21 ± 1.29	12.60 ± 3.77	0.00 ± 0.00	0.91 ± 0.29	1.33 ± 1.35	0.00 ± 0.00	0.00 ± 0.00	0.87 ± 0.32	19.93 ± 4.27	23.87 ± 7.64	3.94 ± 6.75
06/26/87	13	14.96 ± 1.22	51.04 ± 8.36	0.00 ± 0.00	15.60 ± 1.23	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.91 ± 0.38	83.53 ± 9.46	92.92 ± 7.65	9.39 ± 12.17
06/26/87	17	7.62 ± 1.39	13.82 ± 4.33	0.00 ± 0.00	1.54 ± 0.36	5.35 ± 1.36	0.00 ± 0.00	0.00 ± 0.00	29.34 ± 4.87	40.45 ± 7.81	11.11 ± 9.20	
06/26/87	00	11.72 ± 1.18	27.40 ± 5.61	0.00 ± 0.00	1.38 ± 0.63	16.64 ± 2.21	0.00 ± 0.00	0.00 ± 0.00	3.10 ± 0.43	62.24 ± 6.21	80.48 ± 7.90	18.24 ± 10.05
06/26/87	05	11.64 ± 1.22	29.16 ± 5.62	0.00 ± 0.00	4.97 ± 0.75	18.70 ± 2.30	0.00 ± 0.00	0.00 ± 0.00	2.19 ± 0.38	66.06 ± 6.27	79.10 ± 7.79	12.44 ± 10.00
06/26/87	09	10.72 ± 0.87	33.01 ± 5.76	0.00 ± 0.00	3.59 ± 0.81	9.00 ± 2.43	0.00 ± 0.00	0.00 ± 0.00	4.16 ± 0.38	59.96 ± 6.39	70.10 ± 4.97	10.12 ± 8.10

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Primary Mater Veh. Exhaust BCE ± σ (μg/m ³)	Vegetative Burning SCE ± σ (μg/m ³)	Secondary Soil/air SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary (Limestone) SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Aerosol SCE ± σ (μg/m ³)	Marine Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)
LBCC 11/13/87 00 4.40 ± 0.34	29.69 ± 5.56	0.00 ± 0.00	1.67 ± 0.81	29.59 ± 2.79	0.00 ± 0.00	0.00 ± 0.00	2.57 ± 0.25	73.33 ± 6.37	80.94 ± 4.94	7.61 ± 8.06
LBCC 11/13/87 06 5.91 ± 1.61	26.25 ± 4.37	0.00 ± 0.00	6.61 ± 0.75	41.83 ± 3.31	0.00 ± 0.00	0.00 ± 0.00	2.74 ± 0.37	77.35 ± 5.65	87.19 ± 7.55	9.84 ± 9.43
LBCC 11/13/87 10 4.74 ± 1.00	9.93 ± 3.34	0.00 ± 0.00	1.64 ± 0.57	0.94 ± 0.91	0.00 ± 0.00	0.00 ± 0.00	3.06 ± 0.54	26.31 ± 3.16	36.20 ± 1.84	7.89 ± 8.70
LBCC 11/13/87 14 4.86 ± 1.03	13.31 ± 3.16	0.00 ± 0.00	4.72 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.76 ± 0.57	28.65 ± 3.42	31.72 ± 7.70	3.07 ± 8.43
LBCC 11/13/87 18 1.76 ± 0.63	8.07 ± 2.16	0.00 ± 0.00	4.59 ± 0.22	2.14 ± 0.60	0.00 ± 0.00	0.00 ± 0.00	2.61 ± 0.23	19.17 ± 2.39	24.12 ± 4.91	4.95 ± 5.46
LBCC 12/03/87 00 7.51 ± 0.64	92.55 ± 16.27	0.00 ± 0.00	0.61 ± 1.07	27.53 ± 8.13	0.00 ± 0.00	0.00 ± 0.00	1.76 ± 0.41	130.01 ± 18.41	173.10 ± 7.76	43.09 ± 19.98
LBCC 12/03/87 06 20.69 ± 1.39	107.30 ± 19.34	0.00 ± 0.00	5.05 ± 10.28	68.61 ± 10.40	0.00 ± 0.00	0.00 ± 0.00	2.79 ± 0.58	203.83 ± 22.26	229.67 ± 7.99	25.82 ± 23.65
LBCC 12/03/87 10 22.18 ± 1.41	56.43 ± 11.22	0.00 ± 0.00	12.51 ± 4.44	120.31 ± 9.35	0.00 ± 0.00	0.00 ± 0.00	4.86 ± 0.65	216.42 ± 14.97	261.06 ± 6.34	44.64 ± 17.14
LBCC 12/03/87 14 23.95 ± 1.43	41.20 ± 8.64	0.00 ± 0.00	12.19 ± 2.94	74.67 ± 6.38	0.00 ± 0.00	0.00 ± 0.00	7.29 ± 0.86	159.30 ± 11.01	209.43 ± 8.01	50.13 ± 13.62
LBCC 12/03/87 18 10.54 ± 0.91	68.27 ± 11.45	0.00 ± 0.00	3.00 ± 3.69	26.98 ± 6.00	0.00 ± 0.00	0.00 ± 0.00	5.26 ± 0.60	114.04 ± 13.46	135.16 ± 5.04	21.12 ± 14.37
LBCC 12/10/87 00 17.24 ± 1.32	105.73 ± 13.37	0.00 ± 0.00	0.00 ± 0.00	31.35 ± 4.35	0.00 ± 0.00	0.00 ± 0.00	3.67 ± 0.48	157.98 ± 17.91	156.02 ± 5.21	-1.96 ± 18.65
LBCC 12/10/87 06 12.66 ± 1.21	80.69 ± 12.75	0.00 ± 0.00	0.00 ± 0.00	34.90 ± 7.29	0.00 ± 0.00	0.00 ± 0.00	1.94 ± 0.43	130.18 ± 14.74	128.53 ± 7.52	-1.65 ± 16.55
LBCC 12/10/87 10 16.00 ± 2.11	37.16 ± 7.69	0.00 ± 0.00	3.53 ± 1.24	49.18 ± 4.31	0.00 ± 0.00	0.00 ± 0.00	2.42 ± 0.42	108.29 ± 9.24	133.95 ± 8.01	25.66 ± 12.23
LBCC 12/10/87 14 11.35 ± 1.71	27.18 ± 5.85	0.00 ± 0.00	1.42 ± 0.62	19.99 ± 2.45	0.00 ± 0.00	0.00 ± 0.00	3.28 ± 0.47	63.21 ± 6.63	67.69 ± 7.78	4.48 ± 10.22
LBCC 12/10/87 18 9.61 ± 0.89	46.57 ± 6.94	0.00 ± 0.00	0.00 ± 0.00	0.97 ± 1.13	0.00 ± 0.00	0.00 ± 0.00	2.85 ± 0.31	60.00 ± 7.09	43.58 ± 5.05	-16.42 ± 8.70
LBCC 12/11/87 00 3.05 ± 0.92	54.19 ± 7.96	0.00 ± 0.00	0.00 ± 0.00	12.17 ± 4.16	0.00 ± 0.00	0.00 ± 0.00	2.69 ± 0.28	71.49 ± 9.04	74.05 ± 5.06	2.56 ± 10.36
LBCC 12/11/87 06 4.36 ± 0.97	45.06 ± 9.01	0.00 ± 0.00	1.71 ± 1.87	17.46 ± 4.09	0.00 ± 0.00	0.00 ± 0.00	0.76 ± 0.27	69.37 ± 10.04	69.26 ± 7.57	-0.11 ± 12.57
LBCC 12/11/87 10 9.45 ± 1.05	23.68 ± 5.69	0.00 ± 0.00	5.07 ± 0.32	32.78 ± 3.15	0.00 ± 0.00	0.00 ± 0.00	1.72 ± 0.33	72.70 ± 6.66	83.90 ± 7.72	11.20 ± 10.20
LBCC 12/11/87 14 18.39 ± 1.27	31.93 ± 7.22	0.00 ± 0.00	10.24 ± 2.04	52.71 ± 4.60	0.00 ± 0.00	0.00 ± 0.00	2.58 ± 0.41	117.84 ± 8.79	131.48 ± 7.77	13.64 ± 11.73
LBCC 12/11/87 18 15.55 ± 1.34	91.23 ± 15.12	0.00 ± 0.00	15.64 ± 6.58	36.72 ± 7.46	0.00 ± 0.00	0.00 ± 0.00	2.22 ± 0.35	161.37 ± 17.14	166.56 ± 5.30	5.19 ± 17.94
NVR 06/19/87 00 17.70 ± 4.17	16.40 ± 3.43	0.00 ± 0.00	3.87 ± 0.27	6.45 ± 1.04	2.46 ± 0.60	0.00 ± 0.00	9.28 ± 1.10	56.16 ± 4.91	70.87 ± 5.47	14.71 ± 6.78
NVR 06/24/87 00 19.28 ± 1.30	19.70 ± 4.44	0.00 ± 0.00	4.17 ± 0.48	26.54 ± 2.52	1.38 ± 0.73	0.00 ± 0.00	4.50 ± 0.83	77.92 ± 5.60	101.62 ± 7.45	23.20 ± 9.32
NVR 06/19/87 06 21.31 ± 1.51	20.01 ± 4.59	0.00 ± 0.00	15.59 ± 2.32	47.09 ± 3.73	4.13 ± 1.01	0.00 ± 0.00	7.21 ± 1.02	138.03 ± 7.92	163.23 ± 7.73	25.20 ± 11.07
NVR 06/24/87 06 40.13 ± 2.06	23.87 ± 6.30	0.00 ± 0.00	3.42 ± 0.45	10.01 ± 2.16	0.00 ± 0.00	0.00 ± 0.00	5.39 ± 0.81	65.88 ± 4.50	91.78 ± 7.03	25.90 ± 8.35
NVR 06/19/87 13 34.12 ± 1.59	12.04 ± 3.37	0.00 ± 0.00	16.31 ± 3.03	82.52 ± 5.89	2.87 ± 1.14	0.00 ± 0.00	6.77 ± 1.20	187.40 ± 10.03	220.58 ± 7.59	33.18 ± 12.58
NVR 06/24/87 17 44.76 ± 2.36	34.16 ± 7.36	0.00 ± 0.00	4.67 ± 0.30	8.49 ± 1.10	1.42 ± 0.49	0.00 ± 0.00	11.34 ± 0.99	59.91 ± 3.48	82.03 ± 3.88	22.12 ± 5.21
NVR 06/19/87 17 24.01 ± 1.07	9.75 ± 2.85	0.00 ± 0.00	7.77 ± 0.79	31.50 ± 2.92	2.22 ± 0.66	0.00 ± 0.00	6.91 ± 0.83	93.38 ± 5.66	113.04 ± 5.35	19.66 ± 7.79
NVR 06/24/87 17 33.00 ± 1.68	22.30 ± 5.79	0.00 ± 0.00	10.64 ± 1.38	24.92 ± 2.66	1.56 ± 0.86	0.00 ± 0.00	7.36 ± 1.15	101.77 ± 6.92	131.75 ± 7.16	21.47 ± 7.20
NVR 06/24/87 17 34.04 ± 1.59	21.33 ± 4.76	0.00 ± 0.00	10.62 ± 1.12	32.03 ± 2.73	1.74 ± 0.75	0.00 ± 0.00	9.74 ± 0.88	109.51 ± 5.94	130.98 ± 4.07	19.68 ± 8.39
NVR 06/25/87 00 17.11 ± 1.36	22.62 ± 4.46	0.00 ± 0.00	9.18 ± 1.00	39.82 ± 3.14	2.96 ± 0.73	0.00 ± 0.00	6.88 ± 0.90	98.57 ± 6.15	118.25 ± 5.70	19.68 ± 8.39

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary	Major Vch.	Vegetative	Secondary	Nitrate	Construction	Oil	Marine	Calculated	Measured	Unexplained			
	Exhaust	Burning	Sulfate	SCE ± σ	SCE ± σ	SCE ± σ	Aerosol	Mass ± σ	Mass ± σ	Mass ± σ			
	SCE ± σ	SCE ± σ	SCE ± σ	(μg/m ³)									
Site ^a	Date/Time ^b	SCE ± σ	SCE ± σ	SCE ± σ	SCE ± σ	SCE ± σ	SCE ± σ	SCE ± σ	SCE ± σ	SCE ± σ			
RIVR	06/25/87	69	45.74 ± 2.28	31.25 ± 6.77	0.00 ± 0.00	13.76 ± 2.24	65.71 ± 4.90	3.24 ± 1.08	0.00 ± 0.00	6.00 ± 1.22	165.70 ± 8.97	202.71 ± 7.26	37.01 ± 11.54
RIVR	06/25/87	13	39.59 ± 1.80	14.94 ± 4.52	0.00 ± 0.00	7.77 ± 0.68	10.64 ± 1.82	1.14 ± 0.77	0.00 ± 0.00	5.50 ± 1.08	79.50 ± 5.44	109.15 ± 7.02	29.35 ± 8.88
RIVR	06/25/87	17	30.36 ± 1.42	23.36 ± 4.80	0.00 ± 0.00	6.71 ± 0.65	17.33 ± 2.12	2.58 ± 0.77	0.00 ± 0.00	4.90 ± 0.69	85.35 ± 5.66	106.80 ± 3.95	21.45 ± 6.90
RIVR	07/13/87	60	24.39 ± 1.38	14.47 ± 3.61	0.00 ± 0.00	7.16 ± 0.64	18.20 ± 1.99	1.86 ± 0.65	0.00 ± 0.00	2.29 ± 0.47	68.38 ± 4.67	82.72 ± 5.33	14.34 ± 7.09
RIVR	07/13/87	65	34.42 ± 1.99	25.29 ± 5.98	0.00 ± 0.00	6.23 ± 0.84	19.32 ± 2.57	16.99 ± 1.73	0.00 ± 0.00	2.14 ± 0.94	106.40 ± 7.16	118.86 ± 7.06	12.46 ± 10.07
RIVR	07/13/87	69	17.71 ± 1.41	19.13 ± 4.70	0.00 ± 0.00	5.31 ± 0.61	23.98 ± 2.37	3.54 ± 0.74	0.00 ± 0.00	0.79 ± 0.56	70.47 ± 5.67	94.31 ± 6.96	23.84 ± 8.98
RIVR	07/13/87	13	26.41 ± 1.64	16.89 ± 4.99	0.00 ± 0.00	6.42 ± 0.91	14.83 ± 2.15	1.90 ± 0.77	0.00 ± 0.00	2.46 ± 0.90	70.91 ± 5.89	104.38 ± 6.90	33.47 ± 9.07
RIVR	07/13/87	17	24.67 ± 1.12	9.58 ± 2.50	0.00 ± 0.00	5.48 ± 0.37	8.92 ± 1.30	2.45 ± 0.55	0.00 ± 0.00	3.03 ± 0.34	54.13 ± 3.19	76.45 ± 3.83	22.32 ± 4.98
RIVR	07/14/87	60	22.49 ± 0.89	12.64 ± 3.24	0.00 ± 0.00	5.76 ± 0.49	7.65 ± 1.57	0.00 ± 0.00	0.00 ± 0.00	3.75 ± 0.63	57.29 ± 3.84	66.94 ± 5.52	14.65 ± 6.72
RIVR	07/14/87	65	24.19 ± 1.64	22.41 ± 5.63	0.00 ± 0.00	5.51 ± 0.67	11.18 ± 1.83	5.99 ± 0.95	0.00 ± 0.00	4.65 ± 0.98	73.93 ± 5.84	81.56 ± 7.04	7.63 ± 9.15
RIVR	07/14/87	69	29.51 ± 1.63	17.53 ± 4.76	0.00 ± 0.00	8.71 ± 0.98	35.51 ± 3.11	3.37 ± 0.79	0.00 ± 0.00	3.90 ± 1.04	90.32 ± 6.17	121.14 ± 6.92	22.62 ± 9.27
RIVR	07/14/87	13	29.10 ± 1.76	19.70 ± 5.57	0.00 ± 0.00	15.09 ± 1.99	20.96 ± 2.62	1.97 ± 0.88	0.00 ± 0.00	4.77 ± 0.82	91.59 ± 6.69	123.09 ± 7.10	31.50 ± 9.76
RIVR	07/14/87	17	26.22 ± 1.34	15.74 ± 3.65	0.00 ± 0.00	11.84 ± 1.16	15.98 ± 1.86	1.80 ± 0.62	0.00 ± 0.00	5.30 ± 0.65	76.88 ± 4.54	93.73 ± 3.87	16.05 ± 5.97
RIVR	07/15/87	60	15.21 ± 0.79	8.40 ± 2.32	0.00 ± 0.00	13.33 ± 1.29	25.77 ± 2.22	1.36 ± 0.47	0.00 ± 0.00	4.63 ± 0.66	68.70 ± 3.60	83.59 ± 5.52	14.89 ± 6.59
RIVR	07/15/87	65	21.61 ± 1.53	15.89 ± 4.19	0.00 ± 0.00	19.67 ± 2.75	33.30 ± 2.92	4.80 ± 0.81	0.00 ± 0.00	5.46 ± 0.81	106.72 ± 5.73	126.52 ± 7.06	19.80 ± 9.09
RIVR	07/15/87	69	32.03 ± 1.94	24.12 ± 5.82	0.00 ± 0.00	15.13 ± 2.27	47.93 ± 4.07	3.15 ± 0.93	0.00 ± 0.00	3.03 ± 0.90	125.39 ± 7.64	146.01 ± 7.06	20.62 ± 10.40
RIVR	07/15/87	13	24.24 ± 1.55	15.03 ± 4.35	0.00 ± 0.00	9.35 ± 0.96	28.22 ± 2.55	2.34 ± 0.73	0.00 ± 0.00	1.61 ± 0.60	80.79 ± 5.63	107.13 ± 7.05	26.34 ± 9.02
RIVR	07/15/87	17	21.59 ± 1.00	7.25 ± 2.02	0.00 ± 0.00	5.39 ± 0.30	18.37 ± 1.51	2.22 ± 0.48	0.00 ± 0.00	0.77 ± 0.21	55.60 ± 2.83	75.89 ± 3.78	20.29 ± 4.72
RIVR	08/27/87	60	23.77 ± 1.24	11.17 ± 2.83	0.00 ± 0.00	10.06 ± 1.07	34.85 ± 2.81	4.07 ± 0.68	0.00 ± 0.00	3.92 ± 0.77	87.85 ± 4.44	104.31 ± 5.40	16.46 ± 6.99
RIVR	08/27/87	65	69.52 ± 2.71	23.73 ± 5.80	0.00 ± 0.00	11.00 ± 1.67	47.11 ± 4.11	21.85 ± 2.88	0.00 ± 0.00	5.39 ± 0.85	184.59 ± 8.30	196.44 ± 7.47	11.85 ± 11.17
RIVR	08/27/87	69	59.30 ± 2.40	17.30 ± 4.51	0.00 ± 0.00	11.14 ± 1.91	58.57 ± 5.75	5.91 ± 1.20	0.00 ± 0.00	4.26 ± 1.23	156.48 ± 8.04	175.62 ± 13.50	19.14 ± 15.71
RIVR	08/27/87	13	61.65 ± 2.71	15.81 ± 4.27	0.00 ± 0.00	9.95 ± 1.16	21.50 ± 2.35	0.58 ± 1.01	0.00 ± 0.00	8.02 ± 1.01	119.08 ± 5.69	164.52 ± 7.30	45.44 ± 9.26
RIVR	08/27/87	17	41.13 ± 1.62	14.91 ± 3.64	0.00 ± 0.00	9.08 ± 0.93	21.31 ± 2.22	2.57 ± 0.78	0.00 ± 0.00	6.61 ± 0.71	93.62 ± 4.79	116.96 ± 3.92	21.34 ± 6.19
RIVR	08/28/87	60	34.26 ± 1.77	14.71 ± 3.54	0.00 ± 0.00	10.89 ± 1.18	32.80 ± 2.84	25.85 ± 2.48	0.00 ± 0.00	5.27 ± 0.70	121.70 ± 5.63	140.31 ± 5.70	16.53 ± 8.01
RIVR	08/28/87	65	45.65 ± 1.66	15.59 ± 3.78	0.00 ± 0.00	10.16 ± 1.73	39.55 ± 3.97	23.96 ± 2.52	0.00 ± 0.00	5.60 ± 1.02	171.12 ± 6.58	186.21 ± 7.43	15.09 ± 11.35
RIVR	08/28/87	69	40.86 ± 1.60	11.98 ± 3.02	0.00 ± 0.00	14.62 ± 1.75	54.84 ± 3.97	2.53 ± 1.76	0.00 ± 0.00	4.08 ± 0.83	128.90 ± 5.54	153.02 ± 5.81	24.12 ± 6.03
RIVR	08/29/87	65	49.15 ± 2.24	22.80 ± 5.34	0.00 ± 0.00	14.45 ± 2.27	62.75 ± 4.94	10.07 ± 1.43	0.00 ± 0.00	4.97 ± 0.85	164.19 ± 7.95	180.00 ± 7.53	15.81 ± 10.95

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary	Motor Veh.	Vegetative	Secondary	Secondary	Combustion	Oil	Marine	Calculated	Measured	Unexplained
Geological	Exhaust	Burning	Sulfate	Nitrate	(Liquefied)	SCE ± •	SCE ± •	SCE ± •	Mass ± •	Mass ± •
SCE ± •	SCE ± •	SCE ± •	SCE ± •	SCE ± •	SCE ± •	(µg/m ³)				
Site*	Date/Time*									
RIVR	08/29/87	09	41.83 ± 1.86	20.11 ± 5.00	0.00 ± 0.00	18.96 ± 3.21	74.81 ± 5.43	1.31 ± 0.96	4.05 ± 0.79	191.58 ± 7.27
RIVR	08/29/87	13	28.99 ± 1.54	11.73 ± 3.30	0.00 ± 0.00	12.14 ± 1.24	14.17 ± 2.01	0.51 ± 0.68	0.00 ± 0.00	1.13 ± 0.83
RIVR	08/29/87	17	36.52 ± 1.49	12.03 ± 3.65	0.00 ± 0.00	13.15 ± 1.38	27.99 ± 2.39	1.33 ± 0.67	0.00 ± 0.00	4.53 ± 0.64
RIVR	09/02/87	09	26.11 ± 1.24	3.32 ± 1.57	0.00 ± 0.00	2.30 ± 0.20	0.23 ± 0.76	3.96 ± 0.62	0.00 ± 0.00	35.91 ± 2.29
RIVR	09/02/87	13	19.21 ± 1.09	4.26 ± 1.69	0.00 ± 0.00	1.93 ± 0.20	0.27 ± 0.74	0.44 ± 0.29	0.00 ± 0.00	26.11 ± 2.22
RIVR	09/02/87	17	43.62 ± 1.82	20.97 ± 4.87	0.00 ± 0.00	6.74 ± 1.08	32.21 ± 2.91	1.51 ± 0.91	0.00 ± 0.00	5.50 ± 0.68
RIVR	09/03/87	00	30.54 ± 1.47	13.84 ± 3.58	0.00 ± 0.00	6.08 ± 0.54	11.53 ± 1.78	5.32 ± 0.83	0.00 ± 0.00	8.04 ± 0.91
RIVR	09/03/87	03	59.72 ± 2.77	26.09 ± 6.72	0.00 ± 0.00	6.79 ± 1.28	13.07 ± 2.94	46.19 ± 4.38	0.00 ± 0.00	8.87 ± 1.09
RIVR	09/03/87	09	36.63 ± 1.79	16.32 ± 4.40	0.00 ± 0.00	7.59 ± 0.85	15.54 ± 2.18	5.81 ± 0.97	0.00 ± 0.00	5.28 ± 0.94
RIVR	09/03/87	13	49.68 ± 1.77	11.66 ± 3.36	0.00 ± 0.00	8.64 ± 0.75	6.64 ± 1.73	0.16 ± 0.48	0.00 ± 0.00	5.62 ± 1.08
RIVR	09/03/87	17	21.47 ± 1.33	15.27 ± 3.50	0.00 ± 0.00	7.16 ± 0.47	7.88 ± 1.39	1.78 ± 0.58	0.00 ± 0.00	6.11 ± 0.58
RIVR	11/11/87	00	6.98 ± 0.81	16.17 ± 3.91	0.00 ± 0.00	0.93 ± 0.33	0.00 ± 0.00	22.16 ± 2.18	0.00 ± 0.00	0.35 ± 0.21
RIVR	11/11/87	14	17.47 ± 1.68	16.11 ± 3.63	0.00 ± 0.00	0.23 ± 0.14	16.97 ± 2.04	2.09 ± 1.36	0.00 ± 0.00	0.28 ± 0.20
RIVR	11/11/87	18	14.46 ± 2.23	31.04 ± 6.15	0.00 ± 0.00	0.23 ± 0.12	1.43 ± 2.90	17.06 ± 2.17	0.00 ± 0.00	0.28 ± 0.20
RIVR	11/12/87	00	11.94 ± 1.19	20.48 ± 4.06	0.00 ± 0.00	0.00 ± 0.00	4.75 ± 0.68	51.01 ± 4.28	0.00 ± 0.00	0.92 ± 0.23
RIVR	11/12/87	06	20.60 ± 2.33	23.59 ± 5.58	0.00 ± 0.00	1.64 ± 0.77	0.00 ± 0.00	35.96 ± 3.67	0.00 ± 0.00	0.63 ± 0.30
RIVR	11/12/87	14	13.63 ± 1.61	16.61 ± 4.89	0.00 ± 0.00	1.63 ± 0.51	31.79 ± 2.92	3.21 ± 1.37	0.00 ± 0.00	1.18 ± 0.28
RIVR	11/12/87	18	11.31 ± 2.70	44.05 ± 9.56	0.00 ± 0.00	2.63 ± 1.16	39.93 ± 4.12	7.85 ± 1.86	0.00 ± 0.00	1.52 ± 0.28
RIVR	11/12/87	22	26.75 ± 2.19	34.34 ± 7.24	0.00 ± 0.00	6.87 ± 1.22	48.60 ± 4.15	1.76 ± 1.46	0.00 ± 0.00	3.12 ± 0.40
RIVR	11/13/87	00	21.06 ± 1.39	37.80 ± 7.63	0.00 ± 0.00	2.48 ± 1.31	39.39 ± 4.26	47.03 ± 4.31	0.00 ± 0.00	0.78 ± 0.26
RIVR	11/13/87	06	23.81 ± 2.65	41.26 ± 9.28	0.00 ± 0.00	2.03 ± 2.02	52.89 ± 7.62	18.76 ± 2.84	0.00 ± 0.00	0.48 ± 0.21
RIVR	11/13/87	14	13.27 ± 3.81	62.00 ± 12.67	0.00 ± 0.00	2.32 ± 0.28	60.94 ± 7.22	20.00 ± 3.06	0.00 ± 0.00	1.30 ± 0.38
RIVR	11/13/87	18	11.31 ± 2.70	52.39 ± 11.92	0.00 ± 0.00	2.69 ± 1.06	42.77 ± 5.80	37.55 ± 4.03	0.00 ± 0.00	1.06 ± 0.27
RIVR	12/01/87	06	32.72 ± 3.24	27.12 ± 6.38	0.00 ± 0.00	1.31 ± 0.74	20.51 ± 2.65	12.25 ± 2.61	0.00 ± 0.00	0.88 ± 0.27
RIVR	12/01/87	10	22.67 ± 2.03	22.43 ± 5.60	0.00 ± 0.00	4.62 ± 0.51	15.69 ± 1.94	6.63 ± 1.48	0.00 ± 0.00	3.52 ± 0.33
RIVR	12/01/87	14	30.82 ± 2.43	34.64 ± 7.94	0.00 ± 0.00	3.87 ± 1.61	71.11 ± 6.12	3.21 ± 1.72	0.00 ± 0.00	1.33 ± 0.28
RIVR	12/03/87	00	61.24 ± 4.53	70.80 ± 15.22	0.00 ± 0.00	13.77 ± 7.71	184.98 ± 15.13	8.19 ± 3.04	0.00 ± 0.00	4.19 ± 0.61
RIVR	12/03/87	06	12.95 ± 2.57	41.29 ± 7.62	0.00 ± 0.00	23.10 ± 4.21	30.30 ± 3.15	0.00 ± 0.00	1.21 ± 0.32	108.85 ± 9.62
RIVR	12/03/87	10	18.69 ± 2.50	39.04 ± 7.14	0.00 ± 0.00	7.62 ± 3.30	20.64 ± 2.88	0.00 ± 0.00	0.51 ± 0.31	102.61 ± 7.45
RIVR	12/04/87	06								343.17 ± 22.34
RIVR	12/04/87	10								374.51 ± 8.96
RIVR	12/04/87	14								10.33 ± 16.08
RIVR	12/04/87	18								10.29 ± 10.91
RIVR	12/04/87	22								20.94 ± 10.35
RIVR	12/04/87	26								1.34 ± 11.13
RIVR	12/04/87	30								2.54 ± 6.99
RIVR	12/04/87	34								4.63 ± 14.68
RIVR	12/04/87	38								17.05 ± 9.69
RIVR	12/04/87	42								6.19 ± 8.96
RIVR	12/04/87	46								90.72 ± 4.92
RIVR	12/04/87	50								74.28 ± 3.84
RIVR	12/04/87	54								8.60 ± 5.66
RIVR	12/04/87	58								78.95 ± 4.87
RIVR	12/04/87	62								-10.18 ± 7.77
RIVR	12/04/87	66								89.13 ± 6.06
RIVR	12/04/87	70								2.92 ± 6.71
RIVR	12/04/87	74								15.50 ± 10.06
RIVR	12/04/87	78								96.33 ± 7.10
RIVR	12/04/87	82								143.86 ± 7.36
RIVR	12/04/87	86								87.12 ± 7.49
RIVR	12/04/87	90								70.07 ± 6.14
RIVR	12/04/87	94								9.19 ± 7.49
RIVR	12/04/87	98								90.72 ± 4.92
RIVR	12/04/87	102								93.03 ± 8.89
RIVR	12/04/87	106								122.46 ± 5.02
RIVR	12/04/87	110								112.88 ± 7.33
RIVR	12/04/87	114								102.59 ± 8.08
RIVR	12/04/87	118								101.05 ± 7.53
RIVR	12/04/87	122								13.14 ± 11.13
RIVR	12/04/87	126								2.54 ± 6.99
RIVR	12/04/87	130								56.65 ± 4.95
RIVR	12/04/87	134								59.19 ± 4.93
RIVR	12/04/87	138								144.98 ± 10.47
RIVR	12/04/87	142								174.83 ± 15.52
RIVR	12/04/87	146								234.63 ± 7.92
RIVR	12/04/87	150								59.80 ± 17.42
RIVR	12/04/87	154								18.10 ± 15.12
RIVR	12/04/87	158								196.26 ± 13.13
RIVR	12/04/87	162								198.57 ± 14.27
RIVR	12/04/87	166								112.88 ± 7.33
RIVR	12/04/87	170								10.29 ± 10.91
RIVR	12/04/87	174								20.94 ± 10.35
RIVR	12/04/87	178								1.34 ± 11.13
RIVR	12/04/87	182								37.98 ± 12.88
RIVR	12/04/87	186								31.34 ± 24.08
RIVR	12/04/87	190								343.17 ± 22.34
RIVR	12/04/87	194								374.51 ± 8.96
RIVR	12/04/87	198								10.33 ± 16.08
RIVR	12/04/87	202								0.10 ± 10.84
RIVR	12/04/87	206								108.85 ± 5.00
RIVR	12/04/87	210								16.09 ± 11.49
RIVR	12/04/87	214								16.69 ± 2.50
RIVR	12/04/87	218								102.61 ± 7.45
RIVR	12/04/87	222								86.52 ± 8.75
RIVR	12/04/87	226								0.51 ± 0.31

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ (μg/m ³)	Primary Motor Veh. Exhaust SCE ± σ (μg/m ³)	Vegetative Burning SCE ± σ (μg/m ³)	Secondary Sulfate SCE ± σ (μg/m ³)	Secondary Nitrate SCE ± σ (μg/m ³)	Secondary (Limestone) SCE ± σ (μg/m ³)	Construction SCE ± σ (μg/m ³)	Oil Combustion SCE ± σ (μg/m ³)	Marine Aerosol SCE ± σ (μg/m ³)	Calculated Mass ± σ (μg/m ³)	Measured Mass ± σ (μg/m ³)	Unexplained Mass ± σ (μg/m ³)	
Site ^b	Date/Time ^a											
RIVR	12/10/87	14	7.33 ± 1.42	12.45 ± 3.53	0.60 ± 0.00	0.36 ± 0.34	27.05 ± 2.41	1.59 ± 1.27	0.00 ± 0.00	0.04 ± 0.14	48.82 ± 4.73	59.47 ± 7.31
RIVR	12/09/87	18	40.35 ± 3.89	62.27 ± 11.00	0.00 ± 0.00	0.00 ± 0.00	53.08 ± 7.02	24.33 ± 3.27	0.00 ± 0.00	1.84 ± 0.45	192.87 ± 14.01	181.34 ± 5.12
RIVR	12/11/87	00	18.39 ± 3.17	39.79 ± 9.03	0.60 ± 0.00	0.46 ± 0.07	21.52 ± 5.07	37.08 ± 3.96	0.00 ± 0.00	0.06 ± 0.35	129.20 ± 11.54	123.72 ± 4.99
RIVR	12/11/87	06	23.43 ± 2.90	50.93 ± 8.65	0.60 ± 0.00	0.10 ± 0.34	15.99 ± 4.25	24.95 ± 3.13	0.00 ± 0.00	0.25 ± 0.33	115.64 ± 10.73	123.73 ± 7.51
RIVR	12/11/87	10	16.07 ± 1.69	18.36 ± 4.31	0.60 ± 0.00	0.00 ± 0.00	15.62 ± 2.15	2.51 ± 2.10	0.00 ± 0.00	0.08 ± 0.26	52.66 ± 5.52	64.93 ± 7.18
RIVR	12/11/87	14	7.83 ± 1.18	6.65 ± 2.29	0.60 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.11	13.89 ± 2.58	16.50 ± 7.54
SNIC	06/19/87	00	0.09 ± 0.20	0.46 ± 0.40	0.00 ± 0.00	2.16 ± 0.05	1.06 ± 0.27	0.00 ± 0.00	0.00 ± 0.00	8.25 ± 0.83	13.22 ± 1.19	20.45 ± 5.41
SNIC	06/19/87	05	2.15 ± 0.68	1.56 ± 1.01	0.00 ± 0.00	3.12 ± 0.11	1.45 ± 0.36	0.00 ± 0.00	0.00 ± 0.00	8.35 ± 0.68	17.25 ± 1.84	26.24 ± 7.12
SNIC	06/19/87	09	3.35 ± 0.81	1.86 ± 1.06	0.00 ± 0.00	3.24 ± 0.12	1.25 ± 0.35	0.00 ± 0.00	0.00 ± 0.00	8.02 ± 0.63	18.77 ± 1.91	32.37 ± 7.06
SNIC	06/19/87	13	1.21 ± 0.53	1.14 ± 0.97	0.60 ± 0.00	3.15 ± 0.11	1.16 ± 0.35	0.00 ± 0.00	0.00 ± 0.00	9.08 ± 0.70	16.73 ± 1.78	31.45 ± 7.07
SNIC	06/19/87	17	0.05 ± 0.23	0.71 ± 0.48	0.00 ± 0.00	2.48 ± 0.05	0.86 ± 0.20	0.00 ± 0.00	0.00 ± 0.00	7.78 ± 0.57	13.14 ± 1.05	21.17 ± 3.97
SNIC	06/24/87	00	0.66 ± 0.34	1.63 ± 0.87	0.60 ± 0.00	3.94 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.54 ± 0.73	16.98 ± 1.25	29.15 ± 5.61
SNIC	06/24/87	05	0.47 ± 0.31	0.68 ± 0.60	0.60 ± 0.00	4.49 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.67 ± 0.57	11.32 ± 0.99	22.29 ± 6.82
SNIC	06/24/87	09	1.04 ± 0.32	0.79 ± 0.61	0.60 ± 0.00	4.27 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	10.32 ± 0.76	17.87 ± 1.56	29.72 ± 6.98
SNK*	06/24/87	13	1.80 ± 0.55	1.00 ± 0.64	0.60 ± 0.00	3.57 ± 0.14	2.00 ± 0.39	0.00 ± 0.00	0.00 ± 0.00	6.58 ± 0.64	15.90 ± 1.63	26.73 ± 7.04
SNK*	06/24/87	17	1.03 ± 0.27	2.07 ± 0.64	0.60 ± 0.00	3.32 ± 0.08	0.85 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	1.94 ± 0.34	9.21 ± 0.90	16.14 ± 3.91
SNK*	06/25/87	00	1.57 ± 0.37	1.54 ± 0.65	0.60 ± 0.00	3.71 ± 0.11	1.60 ± 0.35	0.00 ± 0.00	0.00 ± 0.00	5.53 ± 0.56	15.00 ± 1.50	25.45 ± 5.65
SNK*	06/25/87	05	2.39 ± 0.47	0.78 ± 0.59	0.60 ± 0.00	3.94 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	9.66 ± 0.77	16.78 ± 1.16	28.04 ± 7.19
SNK*	06/25/87	09	3.18 ± 0.57	0.66 ± 0.59	0.60 ± 0.00	4.07 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	11.35 ± 0.84	21.02 ± 1.69	30.54 ± 7.14
SNIC	06/25/87	13	0.07 ± 0.32	0.72 ± 0.62	0.60 ± 0.00	2.56 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	4.29 ± 0.53	9.13 ± 1.48	11.78 ± 7.14
SNIC	06/25/87	17	1.66 ± 0.25	1.31 ± 0.57	0.60 ± 0.00	3.07 ± 0.06	0.67 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	3.59 ± 0.38	9.31 ± 0.82	15.17 ± 3.88
SNIC	07/13/87	00	0.29 ± 0.23	0.21 ± 0.73	0.60 ± 0.00	2.05 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.65 ± 0.41	5.53 ± 0.92	11.53 ± 5.46
SNIC	07/13/87	05	0.07 ± 0.09	0.62 ± 0.72	0.60 ± 0.00	2.37 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.31 ± 0.35	5.37 ± 0.89	15.97 ± 6.95
SNIC	07/13/87	09	0.31 ± 0.39	0.60 ± 0.00	2.72 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.44 ± 0.46	5.73 ± 1.01	13.93 ± 6.90	
SNIC	07/13/87	13	0.06 ± 0.08	0.39 ± 0.72	0.60 ± 0.00	2.73 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	5.83 ± 0.96	15.53 ± 7.02	29.70 ± 7.09
SNIC	07/13/87	17	0.07 ± 0.07	0.12 ± 0.67	0.60 ± 0.00	2.01 ± 0.04	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	3.31 ± 0.27	5.71 ± 0.76	11.95 ± 3.98
SNIC	07/14/87	00	0.00 ± 0.00	0.42 ± 0.38	0.60 ± 0.00	2.73 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.47 ± 0.36	5.61 ± 0.62	11.26 ± 5.58
SNIC	07/14/87	05	0.05 ± 0.05	0.36 ± 0.56	0.60 ± 0.00	2.24 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	4.61 ± 0.34	9.93 ± 6.87	5.32 ± 6.91
SNIC	07/14/87	09	0.00 ± 0.00	1.23 ± 0.86	0.60 ± 0.00	2.36 ± 0.12	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.29 ± 0.17	11.21 ± 7.24	7.32 ± 7.30
SNIC	07/14/87	09	0.07 ± 0.08	0.52 ± 0.77	0.60 ± 0.00	1.67 ± 0.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.95 ± 0.13	15.24 ± 7.00	12.03 ± 7.06
SNK*	07/14/87	13	0.07 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± • (µg/m ³)	Secondary Motor Veh. Exhaust SCE ± • (µg/m ³)	Vegetative Burning SCE ± • (µg/m ³)	Secondary Sulfate SCE ± • (µg/m ³)	Secondary (Limestone) Nitrate SCE ± • (µg/m ³)	Construction Oil Combustion SCE ± • (µg/m ³)	Marine Aerosol SCE ± • (µg/m ³)	Calculated Mass ± • (µg/m ³)	Measured Mass ± • (µg/m ³)	Unexplained		
									Date/Time ^a	Site ^a	
SNIC	07/19/87	17	0.35 ± 0.07	0.00 ± 0.00	1.68 ± 0.04	0.00 ± 0.00	0.00 ± 0.00	1.46 ± 0.25	3.76 ± 0.69	8.08 ± 3.87	
SNIC	07/19/87	00	0.64 ± 0.05	0.34 ± 0.49	0.00 ± 0.00	2.00 ± 0.08	0.13 ± 0.30	0.00 ± 0.00	0.17 ± 0.12	2.69 ± 0.67	6.12 ± 5.80
SNIC	07/19/87	05	0.65 ± 0.06	0.35 ± 0.37	0.00 ± 0.00	1.28 ± 0.11	0.16 ± 0.35	0.00 ± 0.00	0.08 ± 0.11	1.92 ± 0.77	0.00 ± 0.00
SNIC	07/19/87	09	0.61 ± 0.69	0.60 ± 0.75	0.00 ± 0.00	1.17 ± 0.99	0.00 ± 0.00	0.00 ± 0.00	0.08 ± 0.13	1.92 ± 0.85	3.32 ± 7.07
SNIC	07/19/87	13	0.61 ± 0.04	0.61 ± 0.62	0.00 ± 0.00	1.99 ± 0.10	0.34 ± 0.33	0.00 ± 0.00	0.24 ± 0.17	3.25 ± 0.82	6.58 ± 6.95
SNIC	07/19/87	17	0.67 ± 0.07	0.19 ± 0.64	0.00 ± 0.00	1.25 ± 0.04	0.00 ± 0.00	0.00 ± 0.00	0.36 ± 0.16	2.01 ± 0.70	12.80 ± 4.00
SNIC	07/20/87	00	2.39 ± 0.35	0.33 ± 0.46	0.00 ± 0.00	2.68 ± 0.08	0.59 ± 0.28	0.00 ± 0.00	2.30 ± 0.39	6.70 ± 0.82	15.97 ± 5.36
SNIC	07/20/87	05	0.99 ± 0.29	0.31 ± 0.32	0.00 ± 0.00	1.38 ± 1.00	0.99 ± 0.37	0.00 ± 0.00	1.72 ± 0.39	7.39 ± 0.81	16.15 ± 7.24
SNIC	07/20/87	09	3.33 ± 0.46	0.41 ± 0.41	0.00 ± 0.00	6.27 ± 0.22	1.33 ± 0.38	0.00 ± 0.00	1.06 ± 0.37	12.40 ± 0.96	17.18 ± 7.16
SNIC	07/20/87	13	3.66 ± 0.41	0.91 ± 0.41	0.00 ± 0.00	5.10 ± 1.01	0.82 ± 0.37	0.00 ± 0.00	1.60 ± 0.45	12.35 ± 1.21	19.91 ± 7.03
SNIC	07/20/87	17	1.82 ± 0.26	0.33 ± 0.63	0.00 ± 0.00	3.72 ± 0.08	0.28 ± 0.26	0.00 ± 0.00	5.80 ± 0.48	11.93 ± 0.94	18.42 ± 3.93
SNIC	08/20/87	00	3.17 ± 0.37	0.00 ± 0.00	0.00 ± 0.00	5.40 ± 0.15	1.01 ± 0.34	0.00 ± 0.00	5.04 ± 0.49	14.64 ± 0.83	23.79 ± 5.68
SNIC	08/20/87	05	0.82 ± 0.25	0.00 ± 0.00	0.00 ± 0.00	5.44 ± 0.19	1.01 ± 0.39	0.00 ± 0.00	1.43 ± 0.38	8.73 ± 0.79	14.55 ± 7.31
SNIC	08/20/87	09	9.30 ± 0.72	0.00 ± 0.00	0.00 ± 0.00	6.74 ± 0.24	0.91 ± 0.42	0.00 ± 0.00	9.49 ± 0.77	26.43 ± 1.27	35.39 ± 6.88
SNIC	08/20/87	13	7.16 ± 0.82	0.00 ± 0.00	0.00 ± 0.00	6.57 ± 0.25	1.66 ± 0.40	0.00 ± 0.00	4.76 ± 0.58	20.15 ± 1.27	27.44 ± 7.50
SNIC	08/20/87	17	6.42 ± 0.45	2.57 ± 0.92	0.00 ± 0.00	7.04 ± 0.40	0.39 ± 0.18	0.00 ± 0.00	4.46 ± 0.37	20.89 ± 1.28	30.89 ± 3.86
SNIC	08/20/87	21	4.18 ± 0.46	5.79 ± 3.58	0.00 ± 0.00	6.67 ± 0.42	1.30 ± 0.34	0.00 ± 0.00	4.11 ± 0.48	21.95 ± 3.72	28.57 ± 5.04
SNIC	08/20/87	04	1.19 ± 0.68	0.00 ± 0.00	4.61 ± 0.19	2.36 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	4.71 ± 0.51	14.81 ± 1.17	30.15 ± 8.13
SNIC	08/20/87	09	4.79 ± 0.66	2.15 ± 0.91	0.00 ± 0.00	5.61 ± 0.23	2.30 ± 0.42	0.00 ± 0.00	3.48 ± 0.47	18.35 ± 1.38	0.00 ± 0.00
SNIC	08/20/87	13	4.54 ± 0.61	1.60 ± 0.79	0.00 ± 0.00	4.21 ± 0.15	1.84 ± 0.30	0.00 ± 0.00	2.70 ± 0.41	14.88 ± 1.23	23.23 ± 7.22
SNIC	08/20/87	17	4.52 ± 0.30	0.66 ± 0.74	0.00 ± 0.00	4.10 ± 0.08	0.00 ± 0.00	0.00 ± 0.00	5.52 ± 0.45	14.80 ± 0.98	18.98 ± 3.96
SNIC	09/02/87	00	0.35 ± 0.19	0.27 ± 0.41	0.00 ± 0.00	3.36 ± 0.09	0.00 ± 0.00	0.00 ± 0.00	5.38 ± 0.43	9.35 ± 0.71	14.91 ± 5.31
SNIC	09/02/87	05	0.69 ± 0.29	0.23 ± 0.43	0.00 ± 0.00	4.83 ± 0.17	0.00 ± 0.00	0.00 ± 0.00	3.44 ± 0.45	8.59 ± 0.84	12.66 ± 7.38
SNIC	09/02/87	09	4.02 ± 0.46	1.18 ± 0.91	0.00 ± 0.00	4.01 ± 0.15	0.00 ± 0.00	0.00 ± 0.00	9.38 ± 0.68	18.59 ± 1.30	21.55 ± 6.88
SNIC	09/02/87	13	1.26 ± 0.30	0.57 ± 0.47	0.00 ± 0.00	3.99 ± 0.15	0.00 ± 0.00	0.00 ± 0.00	10.02 ± 0.76	15.83 ± 1.15	24.19 ± 7.21
SNIC	09/02/87	17	3.44 ± 0.28	0.86 ± 0.69	0.00 ± 0.00	3.90 ± 0.07	0.00 ± 0.00	0.00 ± 0.00	4.40 ± 0.37	12.62 ± 0.89	17.27 ± 3.93
SNIC	09/02/87	21	0.00 ± 0.00	0.30 ± 0.29	0.00 ± 0.00	4.86 ± 0.12	0.51 ± 0.28	0.00 ± 0.00	0.18 ± 0.11	5.85 ± 0.58	7.47 ± 5.56
SNIC	09/03/87	05	0.13 ± 0.43	0.26 ± 0.35	0.00 ± 0.00	5.80 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	0.73 ± 0.32	6.92 ± 0.81	9.08 ± 7.02
SNIC	09/03/87	09	0.58 ± 0.25	0.71 ± 0.68	0.00 ± 0.00	7.46 ± 0.27	0.00 ± 0.00	0.00 ± 0.00	1.06 ± 0.47	9.80 ± 1.04	15.19 ± 7.02
SNIC	09/03/87	13	0.43 ± 0.38	0.43 ± 0.31	0.00 ± 0.00	5.77 ± 0.20	0.00 ± 0.00	0.00 ± 0.00	1.90 ± 0.41	8.47 ± 0.93	13.75 ± 7.02

Table B-2 (continued)
Individual Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary Geological SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Primary Motor Veh. Exhaust SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Vegetative Burning SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Secondary Sulfate SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Secondary Nitrate SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Construction (Limestone) SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Oil Combustion SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Marine Aerosol SCE ± σ <u>($\mu\text{g/m}^2$)</u>	Calculated Mass ± σ <u>($\mu\text{g/m}^2$)</u>	Measured Mass ± σ <u>($\mu\text{g/m}^2$)</u>	Unexplained Mass ± σ <u>($\mu\text{g/m}^2$)</u>
SNIC	09/03/87 17	0.00 ± 0.00	0.43 ± 0.57	0.00 ± 0.00	2.19 ± 0.03	0.00 ± 0.00	0.00 ± 0.00	3.68 ± 0.57	11.30 ± 0.85	19.11 ± 3.98
										7.81 ± 4.07

- See Table 3-2 for site names.
- Sampling periods for the summer campaign are: 0000 - 0500, 0500 - 0900, 0900 - 1300, 1300 - 1700, and 1700 - 2400 PST, between 6/19/87 and 9/3/87.
- Sampling periods for the fall campaign are: 0000 - 0600, 0600 - 1000, 1000 - 1400, 1400 - 1800, 1800 - 2400 PST, between 11/1/87 and 12/11/87.

Table E-3
Twenty-Four Hour Average Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/Time ^b	Primary	Motor Veh.	Vegetative	Secondary	Secondary	Oil	Marine	Measured	Unexplained
		SCE ± *	SCE ± *	SCE ± *	Nitrate (Limestone)	Combustion SCE ± *	Aerosol SCE ± *	Calculated SCE ± *	Mass ± *	Mass ± *
		($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)	($\mu\text{g/m}^3$)
ANAH	06/19/87	24	0.69 ± 0.71	3.09 ± 3.24	0.00 ± 0.00	4.62 ± 0.56	0.45 ± 0.78	0.00 ± 0.00	2.19 ± 1.09	21.81 ± 8.48
ANAH	06/24/87	24	1.34 ± 0.98	6.97 ± 5.02	0.00 ± 0.00	10.40 ± 2.23	1.92 ± 1.87	0.00 ± 0.00	1.85 ± 1.18	22.49 ± 5.96
ANAH	06/25/87	24	0.00 ± 0.00	6.81 ± 5.01	0.00 ± 0.00	8.18 ± 1.32	0.98 ± 1.19	0.00 ± 0.00	1.49 ± 1.32	24.50 ± 9.37
ANAH	07/13/87	24	0.00 ± 0.00	8.32 ± 5.82	0.00 ± 0.00	4.90 ± 1.02	0.43 ± 1.45	0.00 ± 0.00	0.08 ± 0.29	13.73 ± 6.17
ANAH	07/14/87	24	0.00 ± 0.00	6.47 ± 4.85	0.00 ± 0.00	10.81 ± 2.28	0.00 ± 0.00	0.00 ± 0.00	0.37 ± 1.14	17.65 ± 5.43
ANAH	07/15/87	24	0.03 ± 0.53	4.67 ± 3.79	0.00 ± 0.00	5.06 ± 0.80	0.19 ± 1.10	0.00 ± 0.00	0.09 ± 0.55	10.04 ± 4.21
ANAH	08/21/87	24	0.12 ± 0.69	10.65 ± 6.93	0.00 ± 0.00	7.98 ± 1.74	3.55 ± 2.44	0.00 ± 0.00	0.57 ± 1.19	22.87 ± 7.72
ANAH	08/28/87	24	0.00 ± 0.00	7.08 ± 5.19	0.00 ± 0.00	9.77 ± 2.76	2.63 ± 2.03	0.00 ± 0.00	0.40 ± 1.04	19.88 ± 6.09
ANAH	08/29/87	24	0.00 ± 0.00	8.35 ± 5.64	0.00 ± 0.00	13.02 ± 4.38	2.97 ± 2.75	0.00 ± 0.00	0.33 ± 1.18	24.86 ± 7.06
ANAH	09/02/87	24	0.55 ± 2.01	12.93 ± 8.72	0.00 ± 0.00	6.65 ± 2.03	0.00 ± 0.00	0.00 ± 0.00	2.01 ± 1.32	22.14 ± 9.27
ANAH	09/03/87	24	0.00 ± 0.56	5.31 ± 4.58	0.00 ± 0.00	7.35 ± 1.38	1.29 ± 1.59	0.00 ± 0.00	1.57 ± 1.23	15.58 ± 5.30
ANAH	11/11/87	24	0.06 ± 0.72	15.25 ± 11.83	0.00 ± 0.00	0.58 ± 1.93	4.23 ± 4.07	0.00 ± 0.00	0.48 ± 0.38	20.59 ± 12.64
ANAH	11/12/87	24	0.00 ± 0.00	23.70 ± 11.07	0.00 ± 0.00	1.42 ± 0.87	17.35 ± 5.94	0.00 ± 0.00	0.74 ± 0.44	43.21 ± 12.63
ANAH	11/13/87	24	0.61 ± 0.98	11.74 ± 7.07	0.00 ± 0.00	5.13 ± 1.16	16.90 ± 4.43	0.00 ± 0.00	1.15 ± 0.48	35.52 ± 8.56
ANAH	12/03/87	24	2.93 ± 4.65	42.96 ± 21.68	0.00 ± 0.00	8.68 ± 8.04	87.38 ± 17.36	0.00 ± 0.00	0.67 ± 0.52	142.21 ± 28.45
ANAH	12/10/87	24	0.00 ± 0.00	44.64 ± 19.98	0.00 ± 0.00	0.91 ± 5.22	38.67 ± 11.49	0.00 ± 0.00	0.49 ± 0.49	84.73 ± 23.24
ANAH	12/11/87	24	0.00 ± 0.00	53.66 ± 21.49	0.00 ± 0.00	2.81 ± 4.87	42.13 ± 12.75	0.00 ± 0.00	0.39 ± 0.50	99.00 ± 25.18
ANAH	12/12/87	24	5.14 ± 2.37	16.73 ± 9.42	0.00 ± 0.00	5.54 ± 1.63	1.25 ± 2.30	0.00 ± 0.00	1.87 ± 1.29	30.53 ± 10.24
AZUS	06/19/87	24	1.31 ± 1.83	14.54 ± 8.89	0.00 ± 0.00	7.46 ± 2.35	2.12 ± 2.77	0.00 ± 0.00	1.25 ± 1.24	37.54 ± 13.17
AZUS	06/24/87	24	1.46 ± 2.16	15.11 ± 9.14	0.00 ± 0.00	11.80 ± 1.60	4.94 ± 3.75	0.00 ± 0.00	0.00 ± 0.00	45.62 ± 11.97
AZUS	06/25/87	24	2.06 ± 2.36	16.70 ± 10.00	0.00 ± 0.00	15.79 ± 6.01	10.38 ± 4.84	0.00 ± 0.00	0.70 ± 1.20	63.72 ± 7.82
AZUS	07/13/87	24	2.19 ± 2.32	15.31 ± 9.86	0.00 ± 0.00	4.41 ± 1.66	0.86 ± 2.62	0.00 ± 0.00	0.00 ± 0.00	22.77 ± 10.62
AZUS	08/28/87	24	5.92 ± 3.36	24.96 ± 13.99	0.00 ± 0.00	9.56 ± 4.06	6.23 ± 5.52	0.00 ± 0.00	0.22 ± 1.04	25.66 ± 9.79
AZUS	08/29/87	24	1.32 ± 2.39	17.20 ± 10.32	0.00 ± 0.00	19.49 ± 9.77	10.07 ± 4.90	0.00 ± 0.00	0.13 ± 1.06	33.31 ± 10.48
AZUS	08/30/87	24	5.79 ± 1.88	10.66 ± 6.62	0.00 ± 0.00	3.12 ± 0.85	0.00 ± 0.00	0.00 ± 0.00	0.29 ± 0.36	19.86 ± 7.01
AZUS	09/02/87	24	4.31 ± 2.63	17.97 ± 10.94	0.00 ± 0.00	8.16 ± 2.31	2.65 ± 3.79	0.00 ± 0.00	0.60 ± 1.06	33.70 ± 12.15
AZUS	09/03/87	24	4.71 ± 1.91	10.99 ± 7.10	0.00 ± 0.00	6.93 ± 1.48	0.00 ± 0.00	0.00 ± 0.00	1.31 ± 1.30	47.98 ± 15.74
BURK	06/19/87	24	0.20 ± 0.93	12.28 ± 7.74	0.00 ± 0.00	5.82 ± 1.63	2.29 ± 3.02	0.00 ± 0.00	1.80 ± 1.06	22.38 ± 6.62
BURK	06/24/87	24	0.08 ± 0.92	13.69 ± 8.94	0.00 ± 0.00	22.26 ± 9.38	5.73 ± 3.11	0.00 ± 0.00	1.25 ± 1.20	43.01 ± 10.58

Table B-3 (continued)
Twenty-Four Hour Average Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary	Motor Veh.	Vegetative	Secondary	Construction	Oil	Marine	Measured	Unexplained
Geological	Exhaust	Burning	Sulfate	Nitrate (Limestone)	Combustion	Aerosol	Mass ± • [µg/m³]	Mass ± • [µg/m³]
SCE ± • [µg/m³]	SCE ± • [µg/m³]	SCE ± • [µg/m³]	Mass ± • [µg/m³]	Mass ± • [µg/m³]				
Site*	Date/Time*							
BURK	06/25/87	24	0.00 ± 0.00	13.41 ± 8.23	0.00 ± 0.00	17.32 ± 6.99	10.41 ± 4.41	0.00 ± 0.00
BURK	07/13/87	24	0.00 ± 0.00	12.63 ± 7.44	0.00 ± 0.00	3.76 ± 1.05	0.49 ± 2.11	0.00 ± 0.00
BURK	07/14/87	24	0.00 ± 0.00	13.17 ± 8.71	0.00 ± 0.00	9.34 ± 3.25	1.03 ± 2.46	0.00 ± 0.00
BURK	07/15/87	24	0.00 ± 0.00	13.26 ± 8.13	0.00 ± 0.00	14.37 ± 4.74	7.04 ± 3.68	0.00 ± 0.00
BURK	08/27/87	24	0.00 ± 0.00	11.32 ± 8.93	0.00 ± 0.00	7.96 ± 1.82	4.43 ± 2.94	0.00 ± 0.00
BURK	08/28/87	24	0.00 ± 0.00	16.55 ± 9.78	0.00 ± 0.00	8.43 ± 2.65	5.10 ± 3.97	0.00 ± 0.00
BURK	08/29/87	24	0.00 ± 0.00	18.66 ± 10.53	0.00 ± 0.00	16.51 ± 10.73	9.19 ± 5.42	0.00 ± 0.00
BURK	09/02/87	24	0.70 ± 1.59	12.59 ± 7.60	0.00 ± 0.00	2.46 ± 0.81	0.80 ± 0.00	0.00 ± 0.00
BURK	09/03/87	24	0.00 ± 0.00	11.56 ± 7.43	0.00 ± 0.00	9.34 ± 2.18	2.28 ± 2.23	0.00 ± 0.00
BURK	11/11/87	24	0.65 ± 0.79	16.42 ± 7.47	0.00 ± 0.00	0.09 ± 0.24	0.11 ± 2.09	0.00 ± 0.00
BURK	11/12/87	24	0.00 ± 0.00	25.31 ± 11.43	0.00 ± 0.00	0.50 ± 1.14	17.81 ± 6.41	0.00 ± 0.00
BURK	11/13/87	24	0.00 ± 0.00	28.60 ± 14.63	0.00 ± 0.00	10.06 ± 5.93	24.35 ± 8.31	0.00 ± 0.00
BURK	12/03/87	24	0.00 ± 0.00	56.84 ± 23.54	0.00 ± 0.00	3.72 ± 7.93	54.31 ± 13.83	0.00 ± 0.00
BURK	12/10/87	24	0.00 ± 0.00	32.46 ± 13.58	0.00 ± 0.00	0.04 ± 0.63	11.47 ± 7.42	0.00 ± 0.00
BURK	12/11/87	24	0.00 ± 0.00	39.74 ± 17.56	0.00 ± 0.00	1.01 ± 3.57	21.55 ± 10.55	0.00 ± 0.00
CELA	06/19/87	24	0.24 ± 1.52	11.33 ± 7.27	0.00 ± 0.00	5.78 ± 1.66	0.71 ± 2.22	0.00 ± 0.00
CELA	06/24/87	24	0.11 ± 1.49	13.60 ± 8.67	0.00 ± 0.00	23.29 ± 11.14	5.73 ± 3.55	0.00 ± 0.00
CELA	06/25/87	24	0.00 ± 0.00	12.65 ± 8.10	0.00 ± 0.00	18.79 ± 8.00	9.28 ± 4.59	0.00 ± 0.00
CELA	07/13/87	24	0.00 ± 0.00	10.84 ± 6.99	0.00 ± 0.00	4.57 ± 1.21	1.55 ± 2.31	0.00 ± 0.00
CELA	07/14/87	24	0.00 ± 0.00	11.21 ± 7.44	0.00 ± 0.00	11.76 ± 4.32	3.01 ± 2.69	0.00 ± 0.00
CELA	07/15/87	24	0.03 ± 0.62	12.81 ± 8.05	0.00 ± 0.00	14.27 ± 4.28	3.57 ± 3.51	0.00 ± 0.00
CELA	08/21/87	24	0.00 ± 0.00	12.40 ± 7.63	0.00 ± 0.00	7.37 ± 1.68	2.35 ± 2.33	0.00 ± 0.00
CELA	08/22/87	24	0.22 ± 0.64	13.95 ± 8.33	0.00 ± 0.00	10.10 ± 2.91	3.25 ± 3.68	0.00 ± 0.00
CELA	08/23/87	24	0.00 ± 0.00	13.80 ± 8.03	0.00 ± 0.00	18.13 ± 6.92	5.93 ± 3.51	0.00 ± 0.00
CELA	09/02/87	24	0.00 ± 0.00	18.50 ± 10.89	0.00 ± 0.00	2.98 ± 1.74	0.00 ± 0.00	0.00 ± 0.00
CELA	09/03/87	24	0.00 ± 0.00	13.57 ± 9.42	0.00 ± 0.00	9.38 ± 2.79	1.65 ± 3.42	0.00 ± 0.00
CELA	11/11/87	24	0.43 ± 2.16	17.56 ± 8.50	0.00 ± 0.00	0.13 ± 0.62	0.79 ± 2.80	0.00 ± 0.00
CELA	11/12/87	24	1.13 ± 2.87	25.14 ± 12.61	0.00 ± 0.00	1.00 ± 1.90	12.14 ± 5.55	0.00 ± 0.00
CELA	11/13/87	24	0.83 ± 1.95	27.06 ± 14.70	0.00 ± 0.00	10.90 ± 6.92	22.38 ± 8.28	0.00 ± 0.00

Table B-3 (continued)
Twenty-Four Hour Average Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time*	Primary		Secondary		Construction		Oil		Marine		Measured		Unexplained	
		Motor Veh.	Vegetative	Sulfate	Nitrate (Limestone)	SCE ± •	Combustion	Aerosol	SCE ± •	Mass ± •	Mass ± •	Mass ± •	Mass ± •	Mass ± •	Mass ± •
		SCE ± •	SCE ± •	SCE ± •	SCE ± •	SCE ± •	SCE ± •	($\mu\text{g}/\text{m}^3$)							
CELA	12/03/87	24	3.71 ± 5.16	41.99 ± 20.14	0.00 ± 0.00	4.76 ± 5.85	47.27 ± 11.86	0.00 ± 0.00	0.00 ± 0.00	1.99 ± 0.82	99.72 ± 24.19	143.55 ± 8.63	43.83 ± 25.68		
CELA	12/10/87	24	0.00 ± 0.00	30.52 ± 12.53	0.00 ± 0.00	0.00 ± 0.00	13.46 ± 6.96	0.00 ± 0.00	0.00 ± 0.00	1.13 ± 0.56	45.11 ± 14.34	68.41 ± 8.41	23.30 ± 16.62		
CELA	12/11/87	24	0.34 ± 2.06	53.03 ± 22.67	0.00 ± 0.00	1.56 ± 3.98	36.59 ± 13.93	0.00 ± 0.00	0.00 ± 0.00	1.79 ± 0.84	93.33 ± 26.77	132.42 ± 8.71	37.09 ± 28.15		
CLAR	06/19/87	24	0.41 ± 1.51	11.23 ± 6.97	0.00 ± 0.00	4.80 ± 1.03	2.80 ± 2.64	0.00 ± 0.00	0.00 ± 0.00	1.16 ± 1.25	20.40 ± 7.85	32.26 ± 7.67	11.86 ± 10.98		
CLAR	06/24/87	24	0.13 ± 1.23	12.61 ± 8.31	0.00 ± 0.00	12.20 ± 4.53	8.03 ± 3.43	0.00 ± 0.00	0.00 ± 0.00	0.99 ± 1.26	33.96 ± 9.61	54.86 ± 7.62	20.90 ± 12.26		
CLAR	06/25/87	24	0.96 ± 1.93	14.48 ± 9.47	0.00 ± 0.00	10.57 ± 3.51	8.67 ± 4.25	0.00 ± 0.00	0.00 ± 0.00	0.53 ± 1.25	31.21 ± 10.96	54.50 ± 7.65	19.29 ± 13.37		
CLAR	07/13/87	24	0.28 ± 1.18	12.53 ± 8.08	0.00 ± 0.00	3.86 ± 1.23	0.91 ± 2.06	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.42	17.63 ± 8.58	24.23 ± 7.66	6.60 ± 11.50		
CLAR	07/14/87	24	0.00 ± 0.00	13.47 ± 8.39	0.00 ± 0.00	7.77 ± 2.80	1.90 ± 2.11	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	23.14 ± 8.93	31.95 ± 7.74	8.81 ± 11.82		
CLAR	07/15/87	24	0.02 ± 0.53	11.63 ± 7.14	0.00 ± 0.00	10.04 ± 2.74	6.21 ± 3.52	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	27.90 ± 8.34	40.13 ± 7.76	12.23 ± 11.39		
CLAR	08/27/87	24	1.43 ± 2.20	14.72 ± 9.14	0.00 ± 0.00	6.81 ± 1.87	3.68 ± 3.34	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	26.63 ± 10.17	46.41 ± 7.61	19.76 ± 12.70		
CLAR	08/28/87	24	1.36 ± 2.28	16.28 ± 9.77	0.00 ± 0.00	8.43 ± 2.77	3.56 ± 3.46	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	29.63 ± 10.87	46.03 ± 7.71	16.40 ± 13.33		
CLAR	08/29/87	24	1.04 ± 2.08	16.92 ± 9.90	0.00 ± 0.00	16.97 ± 6.77	10.32 ± 4.35	0.00 ± 0.00	0.00 ± 0.00	0.32 ± 1.32	45.57 ± 11.77	65.88 ± 7.74	20.31 ± 14.09		
CLAR	09/02/87	24	3.68 ± 1.60	8.02 ± 5.35	0.00 ± 0.00	2.84 ± 0.58	0.00 ± 0.00	0.00 ± 0.00	0.18 ± 0.38	14.73 ± 5.70	22.97 ± 7.64	8.24 ± 9.53			
CLAR	09/03/87	24	0.99 ± 1.89	11.55 ± 8.62	0.00 ± 0.00	6.07 ± 1.46	0.81 ± 0.77	0.00 ± 0.00	0.00 ± 0.00	0.53 ± 1.22	19.95 ± 9.12	31.65 ± 7.62	11.70 ± 11.88		
HAWT	08/19/87	24	0.33 ± 1.00	3.88 ± 3.73	0.00 ± 0.00	4.65 ± 0.74	0.19 ± 0.44	0.00 ± 0.00	0.23 ± 1.00	11.58 ± 4.19	20.45 ± 8.06	8.87 ± 9.10			
HAWT	08/24/87	24	0.39 ± 1.09	3.70 ± 3.52	0.00 ± 0.00	12.28 ± 3.93	0.00 ± 0.00	0.00 ± 0.00	1.75 ± 1.18	32.21 ± 6.85	54.49 ± 8.92	22.28 ± 10.55			
HAWT	08/25/87	24	0.81 ± 1.18	6.43 ± 4.89	0.00 ± 0.00	22.63 ± 9.23	0.59 ± 1.59	0.00 ± 0.00	0.00 ± 0.00	0.48 ± 0.86	26.40 ± 5.99	43.40 ± 8.11	17.00 ± 10.08		
HAWT	08/26/87	24	0.06 ± 0.49	5.60 ± 4.37	0.00 ± 0.00	19.30 ± 6.42	0.97 ± 1.75	0.00 ± 0.00	0.00 ± 0.00	1.01 ± 0.72	7.25 ± 2.38	10.12 ± 8.00	2.87 ± 8.35		
HAWT	07/13/87	24	0.03 ± 0.44	1.17 ± 1.94	0.00 ± 0.00	5.01 ± 0.58	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	16.41 ± 4.47	27.22 ± 8.10	10.75 ± 9.25		
HAWT	07/14/87	24	0.00 ± 0.00	2.97 ± 2.97	0.00 ± 0.00	14.06 ± 4.01	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.75 ± 1.18	32.21 ± 6.85	54.49 ± 8.92	22.28 ± 10.55	
HAWT	07/29/87	24	0.04 ± 0.45	4.18 ± 3.49	0.00 ± 0.00	11.22 ± 2.18	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.56	13.50 ± 4.13	27.62 ± 8.10	12.12 ± 9.09			
HAWT	07/15/87	24	0.00 ± 0.00	4.24 ± 3.61	0.00 ± 0.00	8.04 ± 1.11	0.00 ± 0.00	0.00 ± 0.00	0.82 ± 0.94	13.09 ± 4.12	16.74 ± 6.85	3.65 ± 7.99			
HAWT	08/22/87	24	0.09 ± 0.91	7.09 ± 5.23	0.00 ± 0.00	12.78 ± 3.00	0.00 ± 0.00	0.00 ± 0.00	0.88 ± 1.15	24.32 ± 8.11	29.18 ± 8.47	4.86 ± 11.73			
HAWT	08/23/87	24	0.00 ± 0.00	9.38 ± 7.52	0.00 ± 0.00	14.06 ± 4.01	0.00 ± 0.00	0.00 ± 0.00	0.10 ± 0.42	16.41 ± 4.47	27.22 ± 8.10	10.75 ± 9.25			
HAWT	07/24/87	24	0.00 ± 0.00	2.97 ± 2.97	0.00 ± 0.00	14.06 ± 4.01	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.75 ± 1.18	32.21 ± 6.85	54.49 ± 8.92	22.28 ± 10.55	
HAWT	08/29/87	24	0.41 ± 1.27	7.40 ± 5.51	0.00 ± 0.00	22.62 ± 11.48	0.00 ± 0.00	0.00 ± 0.00	0.22 ± 1.14	15.33 ± 4.96	19.22 ± 7.98	3.89 ± 9.40			
HAWT	09/02/87	24	0.00 ± 0.00	6.61 ± 4.61	0.00 ± 0.00	6.50 ± 0.96	0.00 ± 0.00	0.00 ± 0.00	1.26 ± 1.16	21.21 ± 5.96	26.23 ± 7.95	5.02 ± 9.94			
HAWT	09/03/87	24	0.09 ± 0.91	7.09 ± 5.23	0.00 ± 0.00	12.78 ± 3.00	0.00 ± 0.00	0.00 ± 0.00	0.14 ± 0.30	12.68 ± 6.78	19.03 ± 8.59	6.35 ± 10.94			
HAWT	11/11/87	24	0.36 ± 1.85	1.147 ± 6.39	0.00 ± 0.00	0.66 ± 0.35	0.05 ± 0.96	0.00 ± 0.00	0.76 ± 1.05	31.18 ± 7.41	61.08 ± 8.13	29.90 ± 11.00			
HAWT	08/29/87	24	0.41 ± 1.27	7.40 ± 5.51	0.00 ± 0.00	22.62 ± 11.48	0.00 ± 0.00	0.00 ± 0.00	0.22 ± 1.14	15.33 ± 4.96	19.22 ± 7.98	3.89 ± 9.40			
HAWT	11/12/87	24	0.41 ± 1.66	24.18 ± 11.99	0.00 ± 0.00	3.41 ± 2.03	17.74 ± 9.08	0.00 ± 0.00	0.68 ± 0.41	46.43 ± 15.23	58.59 ± 8.71	12.16 ± 17.54			
HAWT	11/12/87	24	0.00 ± 0.00	16.47 ± 9.66	0.00 ± 0.00	10.10 ± 4.83	12.92 ± 6.38	0.00 ± 0.00	1.42 ± 0.53	40.91 ± 12.13	53.34 ± 8.81	12.43 ± 14.99			
HAWT	11/13/87	24	0.00 ± 0.00	43.54 ± 22.86	0.00 ± 0.00	4.99 ± 8.23	37.94 ± 12.77	0.00 ± 0.00	1.37 ± 0.71	88.11 ± 26.90	127.99 ± 9.41	39.88 ± 28.50			
HAWT	12/03/87	24	0.28 ± 4.71												

Twenty-Four Hour Average Source Contributions to $PM_{2.5}$ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary	Motor Veh.	Vegetative	Secondary	Construction	Oil	Marine	Calculated	Measured	Unexplained
Geological	Exhaust	Burning	Sulfate	Nitrate (Limestone)	Combustion	Aerosol	SCE ± • [$\mu\text{g/m}^3$]	Mass ± • [$\mu\text{g/m}^3$]	Mass ± • [$\mu\text{g/m}^3$]
SCE ± • [$\mu\text{g/m}^3$]	SCE ± • [$\mu\text{g/m}^3$]								
HAWT	12/10/87	24	0.00 ± 0.00	35.67 ± 15.83	0.00 ± 0.00	0.54 ± 0.66	13.36 ± 8.30	0.00 ± 0.00	0.59 ± 0.44
HAWT	12/11/87	24	0.01 ± 3.69	43.59 ± 20.97	0.00 ± 0.00	6.84 ± 6.93	22.07 ± 11.30	0.00 ± 0.00	0.49 ± 0.46
LBCC	06/19/87	24	0.69 ± 0.87	4.32 ± 3.64	0.00 ± 0.00	4.73 ± 0.62	0.00 ± 0.00	2.29 ± 1.06	73.00 ± 24.36
LBCC	06/24/87	24	0.01 ± 0.35	3.75 ± 3.44	0.00 ± 0.00	12.42 ± 3.13	1.26 ± 1.23	0.00 ± 0.00	1.10 ± 1.00
LBCC	06/25/87	24	0.13 ± 0.78	3.54 ± 3.35	0.00 ± 0.00	9.51 ± 1.47	1.67 ± 0.69	0.00 ± 0.00	0.84 ± 1.03
LBCC	07/13/87	24	0.66 ± 1.05	5.27 ± 5.73	0.00 ± 0.00	4.89 ± 0.90	0.17 ± 1.38	0.00 ± 0.00	0.22 ± 0.53
LBCC	07/14/87	24	0.78 ± 1.11	5.26 ± 4.19	0.00 ± 0.00	11.30 ± 2.13	0.00 ± 0.00	0.10 ± 0.43	0.09 ± 0.48
LBCC	07/15/87	24	0.03 ± 0.23	2.02 ± 1.99	0.00 ± 0.00	5.73 ± 0.62	0.00 ± 0.00	0.00 ± 0.00	0.04 ± 0.15
LBCC	08/27/87	24	3.35 ± 2.50	8.86 ± 5.91	0.00 ± 0.00	8.54 ± 1.65	0.00 ± 0.00	0.00 ± 0.00	0.70 ± 0.98
LBCC	08/28/87	24	0.46 ± 1.34	8.04 ± 5.87	0.00 ± 0.00	15.89 ± 5.83	2.16 ± 2.03	0.00 ± 0.00	0.53 ± 0.96
LBCC	08/29/87	24	0.01 ± 0.34	5.08 ± 3.81	0.00 ± 0.00	15.34 ± 3.64	0.00 ± 0.00	0.00 ± 0.00	0.45 ± 0.77
LBCC	09/02/87	24	0.56 ± 1.50	12.62 ± 9.14	0.00 ± 0.00	8.43 ± 2.39	0.00 ± 0.00	0.00 ± 0.00	1.94 ± 1.28
LBCC	09/03/87	24	0.00 ± 0.00	2.52 ± 2.94	0.00 ± 0.00	10.67 ± 1.79	0.00 ± 0.00	0.00 ± 0.00	1.39 ± 0.98
LBCC	11/11/87	24	0.48 ± 2.09	16.93 ± 9.11	0.00 ± 0.00	0.62 ± 1.04	0.81 ± 1.68	0.00 ± 0.00	0.30 ± 0.41
LBCC	11/12/87	24	0.00 ± 0.00	19.24 ± 11.53	0.00 ± 0.00	2.29 ± 1.27	10.74 ± 5.83	0.00 ± 0.00	0.45 ± 4.11
LBCC	11/13/87	24	0.00 ± 0.00	10.68 ± 6.79	0.00 ± 0.00	5.46 ± 1.26	11.93 ± 4.26	0.00 ± 0.00	0.85 ± 0.40
LBCC	12/03/87	24	0.00 ± 0.00	65.33 ± 30.21	0.00 ± 0.00	5.87 ± 14.06	53.49 ± 18.20	0.00 ± 0.00	0.42 ± 0.71
LBCC	12/10/87	24	0.30 ± 2.14	30.77 ± 21.84	0.00 ± 0.00	0.82 ± 1.39	23.21 ± 12.10	0.00 ± 0.00	0.41 ± 0.55
LBCC	12/11/87	24	0.00 ± 0.00	42.54 ± 19.56	0.00 ± 0.00	5.60 ± 7.13	24.57 ± 10.52	0.00 ± 0.00	0.18 ± 0.40
RIVR	06/19/87	24	1.28 ± 1.97	12.06 ± 7.52	0.00 ± 0.00	4.52 ± 0.96	14.33 ± 4.42	0.23 ± 1.09	0.56 ± 0.51
RIVR	06/24/87	24	1.48 ± 2.46	16.00 ± 10.00	0.00 ± 0.00	10.74 ± 4.20	35.64 ± 7.82	0.50 ± 1.44	0.00 ± 0.00
RIVR	06/25/87	24	1.46 ± 2.44	16.86 ± 9.48	0.00 ± 0.00	10.07 ± 3.41	32.60 ± 7.53	0.59 ± 1.42	0.00 ± 0.00
RIVR	07/13/87	24	0.85 ± 2.07	13.03 ± 8.04	0.00 ± 0.00	5.77 ± 1.48	14.82 ± 4.27	0.82 ± 2.24	0.04 ± 0.91
RIVR	07/14/87	24	14.23 ± 8.40	0.00 ± 0.00	8.37 ± 2.59	17.06 ± 4.92	0.31 ± 1.17	0.00 ± 0.00	0.08 ± 0.96
RIVR	07/15/87	24	0.46 ± 1.80	10.98 ± 7.38	0.00 ± 0.00	10.04 ± 3.89	27.41 ± 6.05	0.23 ± 1.07	0.00 ± 0.00
RIVR	08/27/87	24	3.24 ± 2.55	16.15 ± 9.67	0.00 ± 0.00	9.02 ± 2.95	31.89 ± 7.40	0.80 ± 1.49	0.00 ± 0.00
RIVR	08/28/87	24	4.54 ± 2.96	19.00 ± 10.86	0.00 ± 0.00	11.73 ± 4.40	37.24 ± 7.94	1.45 ± 1.77	0.00 ± 0.00
RIVR	08/29/87	24	1.69 ± 2.38	15.11 ± 9.10	0.00 ± 0.00	12.53 ± 4.66	40.15 ± 8.60	0.35 ± 1.39	0.04 ± 0.59
RIVR	09/02/87	24	3.96 ± 1.75	8.64 ± 5.86	0.00 ± 0.00	3.18 ± 1.69	7.40 ± 2.79	0.40 ± 0.94	0.15 ± 0.35

Table B-3 (continued)
 Twenty-Four Hour Average Source Contributions to PM_{2.5} Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time ^b	Primary		Secondary		Construction		Oil		Marine		Measured Mass ± σ ($\mu\text{g/m}^3$)	Unexplained Mass ± σ ($\mu\text{g/m}^3$)
		Major Veh.	Geological	Burnt	Sulfate	SCE ± σ ($\mu\text{g/m}^3$)	SCE ± σ ($\mu\text{g/m}^3$)	SCE ± σ ($\mu\text{g/m}^3$)	Aerosol SCE ± σ ($\mu\text{g/m}^3$)	Calculated Mass ± σ ($\mu\text{g/m}^3$)	Measured Mass ± σ ($\mu\text{g/m}^3$)		
RIVR	09/03/87	24	2.70 ± 2.50	14.50 ± 9.64	0.00 ± 0.00	6.02 ± 1.80	8.20 ± 4.25	1.48 ± 1.58	0.00 ± 0.00	1.02 ± 1.04	33.92 ± 11.17	43.19 ± 7.92	9.27 ± 13.69
RIVR	11/11/87	24	5.40 ± 2.95	17.99 ± 9.01	0.00 ± 0.00	0.06 ± 0.61	3.15 ± 3.49	6.40 ± 3.24	0.00 ± 0.00	0.19 ± 0.37	33.18 ± 10.66	45.54 ± 8.31	12.36 ± 13.32
RIVR	11/12/87	24	3.42 ± 3.17	20.51 ± 10.34	0.00 ± 0.00	0.96 ± 1.46	15.62 ± 5.08	8.99 ± 3.96	0.00 ± 0.00	0.25 ± 0.32	49.75 ± 12.86	60.43 ± 8.24	10.68 ± 15.27
RIVR	11/13/87	24	2.06 ± 3.75	29.47 ± 15.80	0.00 ± 0.00	4.90 ± 4.20	45.34 ± 12.60	5.12 ± 3.58	0.00 ± 0.00	0.70 ± 0.46	87.58 ± 21.06	97.22 ± 8.33	9.64 ± 22.65
RIVR	12/03/87	24	8.25 ± 6.75	51.28 ± 24.62	0.00 ± 0.00	4.88 ± 9.49	82.49 ± 18.87	7.45 ± 5.10	0.00 ± 0.00	0.28 ± 0.49	154.63 ± 32.43	185.91 ± 9.27	31.28 ± 33.73
RIVR	12/10/87	24	2.49 ± 5.04	34.96 ± 15.38	0.00 ± 0.00	0.02 ± 0.32	24.73 ± 9.14	5.51 ± 3.99	0.00 ± 0.00	0.07 ± 0.50	67.79 ± 19.02	81.19 ± 8.32	13.40 ± 20.76
RIVR	12/11/87	24	0.92 ± 4.12	23.12 ± 12.36	0.00 ± 0.00	0.00 ± 0.00	10.24 ± 6.38	2.40 ± 3.00	0.00 ± 0.00	0.07 ± 0.41	36.74 ± 15.20	44.78 ± 7.86	8.04 ± 17.11
SNIC	06/19/87	24	0.26 ± 0.73	1.06 ± 1.97	0.00 ± 0.00	2.76 ± 0.30	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.88 ± 0.63	5.96 ± 2.20	16.88 ± 8.15	10.92 ± 8.44
SNIC	06/24/87	24	0.01 ± 0.08	1.40 ± 1.54	0.00 ± 0.00	3.11 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.05 ± 0.68	5.57 ± 1.82	10.89 ± 8.07	5.32 ± 8.27
SNIC	06/25/87	24	0.02 ± 0.12	1.06 ± 1.46	0.00 ± 0.00	2.55 ± 0.16	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.71 ± 0.66	4.34 ± 1.71	8.87 ± 8.25	4.53 ± 8.43
SNIC	07/11/87	24	0.11 ± 0.26	0.39 ± 1.62	0.00 ± 0.00	2.10 ± 0.14	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.44 ± 0.47	3.04 ± 1.80	7.59 ± 8.01	4.55 ± 8.21
SNIC	07/11/487	24	0.04 ± 0.13	0.54 ± 1.47	0.00 ± 0.00	1.87 ± 0.13	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.06 ± 0.25	2.51 ± 1.59	3.76 ± 8.13	1.25 ± 8.28
SNIC	07/11/587	24	0.06 ± 0.16	0.43 ± 1.39	0.00 ± 0.00	1.15 ± 0.10	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.07 ± 0.16	1.71 ± 1.48	4.62 ± 8.14	2.91 ± 8.27
SNIC	08/27/87	24	0.01 ± 0.09	0.44 ± 1.24	0.00 ± 0.00	1.54 ± 0.27	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.20 ± 0.36	4.19 ± 1.49	8.21 ± 8.18	4.02 ± 8.31
SNIC	08/28/87	24	2.78 ± 0.79	0.75 ± 0.92	0.00 ± 0.00	5.45 ± 0.54	0.00 ± 0.00	0.00 ± 0.00	1.89 ± 0.62	10.88 ± 1.72	16.97 ± 8.25	6.09 ± 8.43	
SNIC	08/29/87	24	0.00 ± 0.00	2.22 ± 3.91	0.00 ± 0.00	4.35 ± 0.51	0.00 ± 0.00	0.00 ± 0.00	1.03 ± 0.61	7.61 ± 4.07	14.52 ± 8.75	6.91 ± 9.65	
SNIC	09/02/87	24	0.00 ± 0.00	0.64 ± 1.45	0.00 ± 0.00	3.38 ± 0.23	0.00 ± 0.00	0.00 ± 0.00	1.23 ± 0.54	5.24 ± 1.70	5.95 ± 8.18	0.71 ± 8.35	
SNIC	09/03/87	24	0.00 ± 0.00	0.42 ± 1.16	0.00 ± 0.00	3.15 ± 0.31	0.00 ± 0.00	0.00 ± 0.00	0.33 ± 0.39	3.90 ± 1.43	3.58 ± 8.13	-0.32 ± 8.25	

* See Table 3-2 for site name.

^a Sampling periods for the summer campaign are: 0000 - 0500, 0500 - 0900, 0900 - 1300, 1300 - 1700, and 1700 - 2400 PST, between 6/19/87 and 9/3/87.

^b Sampling periods for the fall campaign are: 0000 - 0600, 0600 - 1000, 1000 - 1400, 1400 - 1800, 1800 - 2400 PST, between 11/1/87 and 12/11/87.

Table B-4
Twenty-Four Hour Average Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time†	Primary		Motor Veh.		Vegetative		Secondary		Construction		Oil		Marine		Calculated		Measured		Unexplained	
		SCE ± *	[µg/m³]	SCE ± *	[µg/m³]	SCE ± *	[µg/m³]	SCE ± *	[µg/m³]	SCE ± *	[µg/m³]	SCE ± *	[µg/m³]	SCE ± *	[µg/m³]	Mass ± *	[µg/m³]	Mass ± *	[µg/m³]	Mass ± *	[µg/m³]
ANAH	06/19/87	24	8.20 ± 1.61	3.19 ± 1.83	0.00 ± 0.00	5.64 ± 0.65	5.45 ± 1.96	0.00 ± 0.00	0.00 ± 0.00	8.96 ± 1.78	31.45 ± 5.12	48.96 ± 14.64	17.51 ± 15.51								
ANAH	06/20/87	24	13.98 ± 1.97	6.97 ± 5.02	0.00 ± 0.00	11.61 ± 2.25	5.36 ± 2.65	0.00 ± 0.00	0.00 ± 0.00	8.74 ± 2.69	46.65 ± 6.76	61.05 ± 14.18	14.40 ± 15.71								
ANAH	06/21/87	24	10.39 ± 1.77	9.72 ± 7.47	0.00 ± 0.00	9.55 ± 1.40	3.82 ± 2.34	0.00 ± 0.00	0.00 ± 0.00	7.38 ± 2.07	40.85 ± 8.53	53.97 ± 16.20	13.12 ± 18.31								
ANAH	07/13/87	24	8.70 ± 1.54	11.15 ± 7.74	0.00 ± 0.00	5.62 ± 1.09	0.43 ± 1.45	0.00 ± 0.00	0.00 ± 0.00	4.39 ± 1.53	30.28 ± 8.34	40.71 ± 13.88	10.43 ± 16.19								
ANAH	07/14/87	24	8.43 ± 1.52	8.11 ± 6.68	0.00 ± 0.00	12.28 ± 2.31	0.67 ± 0.64	0.00 ± 0.00	0.00 ± 0.00	5.12 ± 1.90	34.62 ± 7.51	45.32 ± 14.35	10.70 ± 16.20								
ANAH	07/15/87	24	8.98 ± 1.69	5.49 ± 4.48	0.00 ± 0.00	5.94 ± 0.86	0.26 ± 1.33	0.00 ± 0.00	0.00 ± 0.00	1.64 ± 1.24	22.31 ± 5.33	28.87 ± 14.40	6.36 ± 15.35								
ANAH	08/27/87	24	15.97 ± 2.08	11.68 ± 8.50	0.00 ± 0.00	9.20 ± 1.79	4.21 ± 2.79	0.00 ± 0.00	0.00 ± 0.00	7.85 ± 2.23	48.91 ± 9.69	62.87 ± 14.32	13.96 ± 17.29								
ANAH	08/28/87	24	8.91 ± 1.38	7.92 ± 6.11	0.00 ± 0.00	11.20 ± 2.78	3.12 ± 2.11	0.00 ± 0.00	0.00 ± 0.00	5.72 ± 1.80	36.88 ± 7.25	51.33 ± 12.47	14.45 ± 14.42								
ANAH	08/29/87	24	8.49 ± 1.33	7.51 ± 5.56	0.00 ± 0.00	12.00 ± 3.62	2.97 ± 2.75	0.00 ± 0.00	0.00 ± 0.00	5.92 ± 2.00	36.88 ± 7.17	47.97 ± 12.40	11.09 ± 14.32								
ANAH	09/02/87	24	20.89 ± 3.10	15.18 ± 10.67	0.00 ± 0.00	7.45 ± 2.69	1.25 ± 1.44	0.00 ± 0.00	0.00 ± 0.00	9.63 ± 2.35	54.41 ± 11.67	68.17 ± 14.37	13.76 ± 18.51								
ANAH	09/03/87	24	12.29 ± 1.93	6.34 ± 6.35	0.00 ± 0.00	8.12 ± 1.44	4.09 ± 2.15	0.00 ± 0.00	0.00 ± 0.00	6.63 ± 1.99	37.47 ± 7.49	49.44 ± 14.76	11.97 ± 16.55								
ANAH	11/11/87	24	7.36 ± 2.15	20.08 ± 13.05	0.00 ± 0.00	0.60 ± 1.93	4.39 ± 4.20	0.00 ± 0.00	0.00 ± 0.00	1.38 ± 0.57	33.80 ± 13.99	37.33 ± 14.51	3.53 ± 20.16								
ANAH	11/12/87	24	11.65 ± 2.18	27.55 ± 12.69	0.00 ± 0.00	1.63 ± 0.95	18.79 ± 6.19	0.00 ± 0.00	0.00 ± 0.00	2.82 ± 0.91	62.44 ± 14.39	67.19 ± 14.58	4.75 ± 20.49								
ANAH	11/13/87	24	6.44 ± 2.15	14.73 ± 6.54	0.00 ± 0.00	5.48 ± 1.18	19.05 ± 4.71	0.00 ± 0.00	0.00 ± 0.00	5.74 ± 1.24	51.44 ± 10.20	58.95 ± 14.60	7.51 ± 17.81								
ANAH	12/03/87	24	19.60 ± 5.32	47.40 ± 23.29	0.00 ± 0.00	9.98 ± 8.06	96.38 ± 17.58	0.00 ± 0.00	0.00 ± 0.00	3.71 ± 1.13	177.07 ± 29.97	203.10 ± 14.89	26.03 ± 33.47								
ANAH	12/10/87	24	17.81 ± 2.67	33.30 ± 21.26	0.00 ± 0.00	0.95 ± 5.22	42.28 ± 11.77	0.00 ± 0.00	0.00 ± 0.00	2.69 ± 0.97	117.04 ± 24.65	127.21 ± 14.69	10.17 ± 28.70								
ANAH	12/11/87	24	16.31 ± 2.50	60.36 ± 22.33	0.00 ± 0.00	3.74 ± 4.91	49.91 ± 13.09	0.00 ± 0.00	0.00 ± 0.00	2.05 ± 0.83	132.36 ± 26.20	143.50 ± 15.14	11.14 ± 30.26								
AZUS	06/19/87	24	34.23 ± 3.58	18.32 ± 10.42	0.00 ± 0.00	6.41 ± 1.68	5.70 ± 3.12	0.00 ± 0.00	0.00 ± 0.00	10.12 ± 2.35	74.83 ± 11.88	91.42 ± 13.64	16.59 ± 18.09								
AZUS	06/24/87	24	32.26 ± 3.26	11.91 ± 12.13	0.00 ± 0.00	19.47 ± 6.92	10.04 ± 3.97	0.00 ± 0.00	0.00 ± 0.00	7.95 ± 2.37	81.64 ± 13.91	111.89 ± 13.82	30.25 ± 19.61								
AZUS	06/25/87	24	33.04 ± 3.64	17.77 ± 10.47	0.00 ± 0.00	18.10 ± 6.03	14.63 ± 5.19	0.00 ± 0.00	0.00 ± 0.00	5.54 ± 2.16	89.08 ± 12.97	113.56 ± 13.67	24.48 ± 18.84								
AZUS	07/13/87	24	34.54 ± 3.72	15.31 ± 9.86	0.00 ± 0.00	5.04 ± 1.69	2.11 ± 3.04	0.00 ± 0.00	0.00 ± 0.00	3.42 ± 1.43	60.42 ± 11.24	73.54 ± 14.20	13.12 ± 18.11								
AZUS	07/14/87	24	27.23 ± 3.24	15.85 ± 9.71	0.00 ± 0.00	10.85 ± 2.69	3.18 ± 2.87	0.00 ± 0.00	0.00 ± 0.00	4.41 ± 1.85	61.52 ± 11.09	77.44 ± 14.16	15.92 ± 17.99								
AZUS	07/15/87	24	27.73 ± 3.39	15.89 ± 10.13	0.00 ± 0.00	13.69 ± 3.83	6.38 ± 4.10	0.00 ± 0.00	0.00 ± 0.00	3.21 ± 1.48	66.90 ± 11.91	82.91 ± 14.23	16.01 ± 18.56								
AZUS	08/27/87	24	34.76 ± 4.03	14.19 ± 10.30	0.00 ± 0.00	6.41 ± 2.44	3.33 ± 3.86	0.00 ± 0.00	0.00 ± 0.00	5.27 ± 2.11	63.97 ± 12.30	75.15 ± 13.11	11.18 ± 17.98								
AZUS	08/28/87	24	50.61 ± 5.29	26.76 ± 14.95	0.00 ± 0.00	10.35 ± 4.12	7.13 ± 5.66	0.00 ± 0.00	0.00 ± 0.00	8.04 ± 2.38	103.69 ± 17.29	119.90 ± 13.60	16.81 ± 22.00								
AZUS	08/29/87	24	27.70 ± 3.43	17.20 ± 10.32	0.00 ± 0.00	23.32 ± 9.79	14.05 ± 5.11	0.00 ± 0.00	0.00 ± 0.00	5.31 ± 1.99	67.58 ± 12.97	105.89 ± 13.64	18.31 ± 18.82								
AZUS	09/02/87	24	38.98 ± 3.39	10.66 ± 6.62	0.00 ± 0.00	3.74 ± 0.90	0.07 ± 0.72	0.00 ± 0.00	0.00 ± 0.00	2.89 ± 1.31	56.34 ± 7.73	77.32 ± 13.40	20.98 ± 15.47								
AZUS	09/03/87	24	42.95 ± 3.85	10.99 ± 7.10	0.00 ± 0.00	8.08 ± 1.53	0.76 ± 0.49	0.00 ± 0.00	0.00 ± 0.00	7.00 ± 2.05	69.80 ± 8.58	84.46 ± 13.75	14.66 ± 16.21								
BURK	06/19/87	24	13.13 ± 2.35	8.98 ± 10.31	0.00 ± 0.00	6.27 ± 1.72	5.00 ± 3.44	0.23 ± 0.93	0.00 ± 0.00	10.06 ± 2.42	53.66 ± 11.60	67.12 ± 13.48	13.46 ± 17.78								
BURK	06/24/87	24	14.46 ± 2.22	9.86 ± 11.43	0.00 ± 0.00	24.87 ± 9.01	6.72 ± 3.28	0.00 ± 0.00	0.00 ± 0.00	8.97 ± 2.56	74.87 ± 13.22	103.16 ± 13.43	28.29 ± 18.84								

Table B-4 (continued)
Twenty-Four Hour Average Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site ^a	Date/Time ^b	Primary		Secondary		Construction		Oil		Marine		Measured		Unexplained		
		Motor Veh.	Vegetative Burnings	Sulfate	Nitrate	(Limestone)	SCE ± •	Aerosol	SCE ± •	Aerosol	SCE ± •	Aerosol	Mass ± •	($\mu\text{g}/\text{m}^3$)	Mass ± •	($\mu\text{g}/\text{m}^3$)
BURK	06/25/87	24	13.57 ± 1.92	17.73 ± 10.54	0.00 ± 0.00	20.41 ± 7.05	11.16 ± 4.46	0.00 ± 0.00	0.00 ± 0.00	5.24 ± 2.17	68.13 ± 12.48	92.00 ± 13.44	23.87 ± 18.34			
BURK	07/13/87	24	7.52 ± 1.42	14.77 ± 9.15	0.00 ± 0.00	4.55 ± 1.09	2.23 ± 2.64	0.00 ± 0.00	0.00 ± 0.00	3.99 ± 1.36	33.06 ± 9.86	42.58 ± 13.29	9.52 ± 16.55			
BURK	07/14/87	24	11.26 ± 1.73	16.71 ± 11.78	0.00 ± 0.00	10.26 ± 3.29	5.53 ± 3.02	0.00 ± 0.00	0.00 ± 0.00	3.10 ± 1.47	46.86 ± 12.65	58.55 ± 13.31	11.69 ± 18.36			
BURK	07/15/87	24	12.51 ± 1.80	17.07 ± 10.20	0.00 ± 0.00	16.83 ± 4.78	9.15 ± 3.97	0.00 ± 0.00	0.00 ± 0.00	2.38 ± 1.53	58.13 ± 11.67	74.60 ± 13.36	16.47 ± 17.74			
BURK	08/27/87	24	15.89 ± 1.93	13.34 ± 10.05	0.00 ± 0.00	9.36 ± 1.86	8.03 ± 3.34	0.00 ± 0.00	0.00 ± 0.00	5.37 ± 1.97	51.99 ± 11.16	63.81 ± 13.41	11.82 ± 17.45			
BURK	08/28/87	24	17.74 ± 2.00	18.29 ± 10.96	0.00 ± 0.00	10.16 ± 2.68	6.67 ± 4.22	0.00 ± 0.00	0.00 ± 0.00	6.85 ± 2.20	59.20 ± 12.38	71.32 ± 13.09	12.32 ± 18.02			
BURK	08/29/87	24	14.55 ± 1.85	19.75 ± 11.86	0.00 ± 0.00	19.96 ± 10.76	11.06 ± 5.53	0.00 ± 0.00	0.00 ± 0.00	5.65 ± 1.85	70.99 ± 14.13	101.52 ± 13.55	30.53 ± 19.58			
BURK	09/02/87	24	17.03 ± 2.54	16.27 ± 9.04	0.00 ± 0.00	2.87 ± 0.89	0.29 ± 1.47	0.00 ± 0.00	0.00 ± 0.00	2.90 ± 1.39	39.36 ± 9.74	52.00 ± 13.41	12.64 ± 16.57			
BURK	09/03/87	24	17.31 ± 2.06	14.45 ± 9.44	0.00 ± 0.00	10.90 ± 2.23	5.10 ± 2.56	0.00 ± 0.00	0.00 ± 0.00	7.63 ± 2.09	55.38 ± 10.49	67.90 ± 13.39	12.52 ± 17.01			
BURK	11/11/87	24	8.56 ± 2.10	18.99 ± 8.65	0.00 ± 0.00	0.12 ± 0.29	0.11 ± 2.69	0.00 ± 0.00	0.00 ± 0.00	1.12 ± 0.62	28.89 ± 9.19	37.38 ± 14.34	8.49 ± 17.03			
BURK	11/12/87	24	10.80 ± 2.20	30.30 ± 12.84	0.00 ± 0.00	0.30 ± 1.14	19.45 ± 6.65	0.00 ± 0.00	0.00 ± 0.00	2.45 ± 0.87	63.49 ± 14.69	77.48 ± 14.30	13.99 ± 20.50			
BURK	11/13/87	24	10.27 ± 2.20	33.53 ± 16.49	0.00 ± 0.00	12.29 ± 5.06	29.76 ± 8.72	0.00 ± 0.00	0.00 ± 0.00	4.41 ± 1.10	90.27 ± 19.17	105.63 ± 14.37	15.36 ± 23.96			
BURK	12/03/87	24	14.28 ± 2.43	64.42 ± 25.42	0.00 ± 0.00	4.54 ± 7.97	62.72 ± 14.20	0.00 ± 0.00	0.00 ± 0.00	2.44 ± 0.95	148.40 ± 29.61	178.61 ± 14.70	30.21 ± 33.06			
BURK	12/04/87	24	9.72 ± 2.02	31.29 ± 14.69	0.00 ± 0.00	0.04 ± 0.63	12.25 ± 7.35	0.00 ± 0.00	0.00 ± 0.00	0.31 ± 0.49	59.61 ± 16.66	72.11 ± 14.28	12.50 ± 21.94			
BURK	12/11/87	24	12.32 ± 2.47	46.78 ± 19.77	0.00 ± 0.00	1.21 ± 3.64	26.20 ± 11.05	0.00 ± 0.00	0.00 ± 0.00	0.56 ± 0.46	90.07 ± 22.89	118.32 ± 14.37	28.25 ± 27.03			
CELA	06/19/87	24	10.72 ± 2.28	14.45 ± 9.31	0.00 ± 0.00	6.66 ± 1.72	3.60 ± 2.60	0.00 ± 0.00	0.00 ± 0.00	10.30 ± 2.14	45.74 ± 10.35	59.09 ± 13.52	13.35 ± 17.03			
CELA	06/20/87	24	14.94 ± 2.46	16.57 ± 10.71	0.00 ± 0.00	25.99 ± 11.16	5.73 ± 3.35	0.00 ± 0.00	0.00 ± 0.00	10.26 ± 2.67	73.49 ± 12.84	98.34 ± 13.66	24.85 ± 18.73			
CELA	06/21/87	24	13.57 ± 1.97	17.23 ± 10.34	0.00 ± 0.00	20.79 ± 8.03	9.28 ± 4.59	0.00 ± 0.00	0.00 ± 0.00	5.95 ± 2.22	66.82 ± 12.42	84.70 ± 13.68	17.88 ± 18.48			
CELA	06/25/87	24	5.83 ± 1.32	12.96 ± 8.64	0.00 ± 0.00	5.41 ± 1.27	2.43 ± 2.43	0.00 ± 0.00	0.00 ± 0.00	4.47 ± 1.44	31.16 ± 9.35	39.19 ± 13.56	8.03 ± 16.47			
CELA	07/13/87	24	8.73 ± 1.59	14.39 ± 9.36	0.00 ± 0.00	13.32 ± 4.35	4.14 ± 2.81	0.00 ± 0.00	0.00 ± 0.00	3.78 ± 1.67	44.39 ± 10.48	52.69 ± 13.81	8.30 ± 17.34			
CELA	07/14/87	24	11.16 ± 1.90	16.88 ± 10.10	0.00 ± 0.00	16.66 ± 4.32	3.96 ± 3.62	0.00 ± 0.00	0.00 ± 0.00	3.06 ± 1.63	51.71 ± 11.47	64.33 ± 13.80	12.62 ± 17.94			
CELA	08/21/87	24	11.90 ± 1.69	13.63 ± 8.71	0.00 ± 0.00	8.35 ± 1.72	3.22 ± 2.51	0.00 ± 0.00	0.00 ± 0.00	8.09 ± 2.09	45.20 ± 9.68	57.28 ± 13.53	12.08 ± 16.64			
CELA	08/22/87	24	15.81 ± 2.36	20.43 ± 11.12	0.00 ± 0.00	11.03 ± 3.03	3.68 ± 3.81	0.00 ± 0.00	0.00 ± 0.00	7.37 ± 2.24	58.32 ± 12.50	73.14 ± 13.73	14.82 ± 18.57			
CELA	08/29/87	24	5.34 ± 2.83	21.32 ± 9.70	0.00 ± 0.00	0.13 ± 0.64	0.84 ± 3.03	0.00 ± 0.00	0.00 ± 0.00	0.55 ± 0.54	26.18 ± 10.63	43.35 ± 14.35	15.17 ± 18.02			
CELA	09/01/87	24	12.79 ± 1.69	13.80 ± 8.03	0.00 ± 0.00	21.16 ± 6.93	8.02 ± 3.79	0.00 ± 0.00	0.00 ± 0.00	5.32 ± 1.65	61.09 ± 9.97	79.21 ± 13.54	18.12 ± 16.81			
CELA	09/02/87	24	18.19 ± 2.11	21.84 ± 12.17	0.00 ± 0.00	3.50 ± 1.79	0.55 ± 0.54	0.00 ± 0.00	0.00 ± 0.00	3.81 ± 1.68	47.89 ± 12.65	65.42 ± 13.66	17.53 ± 18.62			
CELA	09/03/87	24	15.44 ± 2.04	16.41 ± 11.18	0.00 ± 0.00	10.37 ± 2.83	3.74 ± 3.71	0.00 ± 0.00	0.00 ± 0.00	9.47 ± 2.20	55.43 ± 12.42	68.38 ± 13.72	12.95 ± 18.51			
CELA	11/11/87	24	5.34 ± 2.83	21.32 ± 9.70	0.00 ± 0.00	0.10 ± 0.64	0.84 ± 3.03	0.00 ± 0.00	0.00 ± 0.00	0.55 ± 0.54	26.18 ± 10.63	43.35 ± 14.35	15.17 ± 18.02			
CELA	11/12/87	24	8.01 ± 3.50	29.81 ± 14.14	0.00 ± 0.00	1.10 ± 1.93	14.46 ± 5.84	0.00 ± 0.00	0.00 ± 0.00	1.26 ± 0.61	54.64 ± 15.33	74.70 ± 14.65	20.06 ± 21.57			
CELA	11/13/87	24	8.00 ± 2.89	32.91 ± 16.54	0.00 ± 0.00	13.89 ± 6.07	31.73 ± 8.78	0.00 ± 0.00	0.00 ± 0.00	3.78 ± 1.05	90.41 ± 19.34	107.68 ± 14.90	17.27 ± 24.41			
CELA	12/03/87	24	13.77 ± 5.64	50.91 ± 22.15	0.00 ± 0.00	5.84 ± 5.89	58.02 ± 12.32	0.00 ± 0.00	0.00 ± 0.00	2.21 ± 0.84	130.76 ± 26.23	156.96 ± 14.94	26.20 ± 30.19			

Table B-4 (continued)
Twenty-Four Hour Average Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Primary	Motor Veh.		Vegetative		Secondary		Construction		Oil		Marine		Measured Mass \pm σ [$\mu\text{g/m}^3$]	Unexplained Mass \pm σ [$\mu\text{g/m}^3$]
	Geological	Exhaust	Burning	Sulfate	Nitrate	(Limestone)	Combustion	Aerosol	SCE \pm σ	SCE \pm σ	SCE \pm σ	SCE \pm σ		
Site*	Date/Time ^b	SCE \pm σ [$\mu\text{g/m}^3$]												
CELA	12/10/87	24	8.45 \pm 2.17	40.05 \pm 14.45	0.00 \pm 0.00	0.04 \pm 0.22	15.13 \pm 7.40	0.00 \pm 0.00	0.00 \pm 0.00	1.13 \pm 0.36	64.81 \pm 16.40	77.94 \pm 14.49	13.13 \pm 21.88	
CELA	12/11/87	24	12.92 \pm 3.48	71.53 \pm 25.45	0.00 \pm 0.00	2.08 \pm 4.10	44.93 \pm 14.61	0.00 \pm 0.00	0.00 \pm 0.00	1.79 \pm 0.84	133.26 \pm 29.65	149.26 \pm 15.94	16.00 \pm 33.25	
CLAR	06/19/87	24	14.59 \pm 2.41	12.74 \pm 8.09	0.00 \pm 0.00	5.10 \pm 1.00	3.81 \pm 2.90	0.00 \pm 0.00	0.00 \pm 0.00	7.81 \pm 2.15	44.04 \pm 9.33	58.35 \pm 13.40	14.31 \pm 16.33	
CLAR	06/24/87	24	17.28 \pm 2.36	13.60 \pm 9.33	0.00 \pm 0.00	13.65 \pm 4.55	13.37 \pm 3.96	0.00 \pm 0.00	0.00 \pm 0.00	5.63 \pm 2.04	63.33 \pm 11.04	87.43 \pm 13.35	23.90 \pm 17.32	
CLAR	06/25/87	24	22.15 \pm 3.51	20.89 \pm 12.52	0.00 \pm 0.00	11.86 \pm 3.53	12.92 \pm 5.58	0.00 \pm 0.00	0.00 \pm 0.00	5.01 \pm 2.36	73.42 \pm 14.61	89.10 \pm 13.44	15.68 \pm 19.85	
CLAR	07/11/87	24	13.27 \pm 2.16	13.41 \pm 9.22	0.00 \pm 0.00	4.41 \pm 1.77	1.74 \pm 2.61	0.00 \pm 0.00	0.00 \pm 0.00	1.62 \pm 1.18	34.45 \pm 10.05	45.81 \pm 13.40	11.36 \pm 16.75	
CLAR	07/11/87	24	12.88 \pm 1.76	14.71 \pm 8.60	0.00 \pm 0.00	8.89 \pm 2.82	2.13 \pm 2.29	0.00 \pm 0.00	0.00 \pm 0.00	3.59 \pm 1.47	42.21 \pm 9.49	53.51 \pm 13.49	13.30 \pm 16.49	
CLAR	07/13/87	24	13.23 \pm 1.95	15.29 \pm 9.18	0.00 \pm 0.00	11.83 \pm 2.78	7.90 \pm 3.71	0.00 \pm 0.00	0.00 \pm 0.00	2.26 \pm 1.55	50.51 \pm 10.54	59.93 \pm 13.50	9.42 \pm 17.13	
CLAR	08/22/87	24	27.00 \pm 3.36	14.78 \pm 9.65	0.00 \pm 0.00	8.21 \pm 1.91	4.09 \pm 3.48	0.00 \pm 0.00	0.00 \pm 0.00	6.12 \pm 1.86	60.20 \pm 11.18	76.51 \pm 13.33	16.31 \pm 17.40	
CLAR	08/23/87	24	25.29 \pm 3.28	16.28 \pm 9.77	0.00 \pm 0.00	10.60 \pm 2.81	7.61 \pm 4.42	0.00 \pm 0.00	0.00 \pm 0.00	4.78 \pm 2.09	64.56 \pm 11.68	81.05 \pm 13.34	16.49 \pm 17.88	
CLAR	08/29/87	24	22.01 \pm 3.00	16.92 \pm 9.90	0.00 \pm 0.00	19.95 \pm 6.84	14.03 \pm 5.20	0.00 \pm 0.00	0.00 \pm 0.00	4.89 \pm 2.29	77.80 \pm 12.43	94.59 \pm 13.34	16.79 \pm 18.38	
CLAR	09/02/87	24	22.63 \pm 2.70	8.59 \pm 6.23	0.00 \pm 0.00	3.47 \pm 0.65	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	2.86 \pm 1.37	31.57 \pm 7.06	55.50 \pm 13.32	17.93 \pm 15.08	
CLAR	09/03/87	24	22.50 \pm 2.97	11.35 \pm 8.62	0.00 \pm 0.00	6.88 \pm 1.49	1.32 \pm 1.26	0.00 \pm 0.00	0.00 \pm 0.00	6.68 \pm 2.18	48.93 \pm 9.66	65.88 \pm 13.35	16.95 \pm 16.48	
HAWT	06/19/87	24	5.59 \pm 1.69	4.79 \pm 5.08	0.00 \pm 0.00	5.31 \pm 0.81	2.61 \pm 1.45	0.00 \pm 0.00	0.00 \pm 0.00	10.69 \pm 1.99	28.99 \pm 6.07	43.89 \pm 13.87	14.90 \pm 15.14	
HAWT	06/24/87	24	10.21 \pm 1.93	6.36 \pm 5.19	0.00 \pm 0.00	26.93 \pm 9.27	1.21 \pm 2.01	0.00 \pm 0.00	0.00 \pm 0.00	9.83 \pm 2.38	54.74 \pm 7.73	75.03 \pm 13.76	20.29 \pm 15.78	
HAWT	06/25/87	24	7.52 \pm 1.53	5.77 \pm 4.88	0.00 \pm 0.00	21.35 \pm 6.43	1.93 \pm 2.00	0.00 \pm 0.00	0.00 \pm 0.00	4.64 \pm 1.80	41.21 \pm 6.85	59.02 \pm 13.94	17.81 \pm 15.53	
HAWT	07/13/87	24	2.18 \pm 1.09	2.00 \pm 3.83	0.00 \pm 0.00	5.59 \pm 0.65	0.31 \pm 0.39	0.00 \pm 0.00	0.00 \pm 0.00	5.85 \pm 1.61	15.94 \pm 4.53	24.16 \pm 13.75	8.22 \pm 14.48	
HAWT	07/14/87	24	6.15 \pm 1.57	4.27 \pm 4.77	0.00 \pm 0.00	13.62 \pm 3.94	0.28 \pm 0.61	0.00 \pm 0.00	0.00 \pm 0.00	4.77 \pm 1.48	28.60 \pm 5.93	36.76 \pm 13.86	8.16 \pm 15.06	
HAWT	07/15/87	24	6.43 \pm 1.38	4.18 \pm 3.49	0.00 \pm 0.00	13.42 \pm 2.21	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	2.99 \pm 1.41	27.02 \pm 4.61	37.45 \pm 13.87	10.43 \pm 14.62	
HAWT	08/27/87	24	6.17 \pm 1.59	4.24 \pm 3.61	0.00 \pm 0.00	8.72 \pm 1.13	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	7.30 \pm 1.84	26.41 \pm 4.67	28.94 \pm 11.70	2.53 \pm 12.60	
HAWT	08/28/87	24	10.02 \pm 1.51	9.36 \pm 7.52	0.00 \pm 0.00	15.44 \pm 4.14	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	7.38 \pm 1.98	42.22 \pm 8.45	48.61 \pm 14.54	6.39 \pm 16.82	
HAWT	08/29/87	24	8.15 \pm 1.99	7.40 \pm 5.51	0.00 \pm 0.00	25.46 \pm 11.50	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	7.09 \pm 2.34	48.10 \pm 7.94	76.28 \pm 13.96	28.18 \pm 16.06	
HAWT	09/03/87	24	12.47 \pm 1.97	7.09 \pm 5.23	0.00 \pm 0.00	13.94 \pm 3.02	0.00 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	9.90 \pm 2.23	43.41 \pm 6.55	51.29 \pm 13.73	7.83 \pm 15.21	
HAWT	11/11/87	24	7.47 \pm 2.74	16.83 \pm 8.15	0.00 \pm 0.00	0.66 \pm 0.35	0.24 \pm 1.84	0.00 \pm 0.00	0.00 \pm 0.00	1.64 \pm 0.56	26.84 \pm 8.85	34.42 \pm 14.75	143.67 \pm 16.19	26.84 \pm 32.58
HAWT	12/03/87	24	11.29 \pm 5.30	30.12 \pm 24.10	0.00 \pm 0.00	5.19 \pm 8.23	45.19 \pm 13.16	0.00 \pm 0.00	0.00 \pm 0.00	5.03 \pm 1.40	116.83 \pm 28.27	12.37 \pm 22.34	10.06 \pm 24.68	
HAWT	12/04/87	24	8.75 \pm 2.24	42.82 \pm 17.10	0.00 \pm 0.00	0.54 \pm 0.66	15.97 \pm 8.36	0.00 \pm 0.00	0.00 \pm 0.00	4.29 \pm 0.96	72.36 \pm 19.30	82.44 \pm 15.39	10.70 \pm 15.36	8.45 \pm 30.16
HAWT	12/11/87	24	9.34 \pm 4.32	50.49 \pm 22.47	0.00 \pm 0.00	9.49 \pm 6.98	27.17 \pm 11.62	0.00 \pm 0.00	0.00 \pm 0.00	2.76 \pm 0.85	99.25 \pm 25.95	107.70 \pm 15.78	29.87 \pm 13.78	44.26 \pm 13.78
LBCC	06/19/87	24	8.78 \pm 1.69	5.00 \pm 4.76	0.00 \pm 0.00	5.00 \pm 0.70	1.87 \pm 1.59	0.00 \pm 0.00	0.00 \pm 0.00	9.22 \pm 1.78	44.26 \pm 13.78	14.39 \pm 14.94		

Table B-4 (continued)
Twenty-Four Hour Average Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time*	Primary		Secondary		Oil		Marine		Measured		Unexplained	
		Geological	Motor Veh. Exhaust	Burning	Sulfate	Nitrate (Limestone)	Combustion	Aerosol	SCE ± • ($\mu\text{g/m}^3$)	SCE ± • ($\mu\text{g/m}^3$)	Mass ± • ($\mu\text{g/m}^3$)	Mass ± • ($\mu\text{g/m}^3$)	Mass ± • ($\mu\text{g/m}^3$)
LBCC	06/24/87	24	10.30 ± 1.57	3.75 ± 3.44	0.00 ± 0.00	13.92 ± 3.15	2.23 ± 1.54	0.00 ± 0.00	0.00 ± 0.00	6.97 ± 1.84	37.17 ± 5.13	51.30 ± 13.91	14.13 ± 14.83
LBCC	06/24/87	24	8.73 ± 1.67	4.24 ± 5.00	0.00 ± 0.00	10.82 ± 1.52	2.55 ± 1.29	0.00 ± 0.00	0.00 ± 0.00	5.94 ± 1.99	32.29 ± 6.10	44.02 ± 14.20	11.73 ± 15.45
LBCC	07/13/87	24	8.49 ± 1.92	7.81 ± 8.96	0.00 ± 0.00	5.68 ± 1.03	0.17 ± 1.38	0.00 ± 0.00	0.30 ± 2.85	4.50 ± 1.55	21.44 ± 9.76	36.13 ± 13.85	8.69 ± 16.94
LBCC	07/14/87	24	9.21 ± 1.69	6.43 ± 6.00	0.00 ± 0.00	13.08 ± 2.17	0.00 ± 0.00	0.10 ± 0.43	4.25 ± 1.55	31.06 ± 6.91	42.84 ± 14.41	9.78 ± 15.98	
LBCC	07/15/87	24	3.24 ± 1.02	3.23 ± 4.16	0.00 ± 0.00	6.96 ± 0.69	0.00 ± 0.00	0.00 ± 0.00	1.22 ± 1.00	14.66 ± 4.62	20.29 ± 13.67	5.63 ± 14.43	
LBCC	08/22/87	24	22.76 ± 4.51	9.57 ± 6.39	0.00 ± 0.00	9.65 ± 1.69	0.00 ± 0.00	0.00 ± 0.00	6.62 ± 2.01	48.62 ± 8.34	60.62 ± 13.85	12.00 ± 16.17	
LBCC	08/23/87	24	14.37 ± 2.25	8.46 ± 6.03	0.00 ± 0.00	17.24 ± 3.84	2.16 ± 2.03	0.00 ± 0.00	0.00 ± 0.00	6.12 ± 1.82	48.56 ± 7.74	59.84 ± 13.79	11.28 ± 15.81
LBCC	08/29/87	24	8.83 ± 1.59	5.36 ± 4.78	0.00 ± 0.00	17.09 ± 3.66	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	4.51 ± 1.75	35.79 ± 6.07	46.41 ± 13.89	10.62 ± 15.16
LBCC	09/02/87	24	18.81 ± 2.62	12.62 ± 9.14	0.00 ± 0.00	9.12 ± 2.40	0.00 ± 0.00	0.00 ± 0.00	10.76 ± 2.33	51.33 ± 10.35	64.77 ± 13.75	13.44 ± 17.03	
LBCC	09/03/87	24	4.30 ± 1.50	2.68 ± 3.15	0.00 ± 0.00	11.49 ± 1.82	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	8.56 ± 2.03	31.22 ± 4.56	39.87 ± 13.87	8.65 ± 14.60
LBCC	11/11/87	24	11.75 ± 3.04	21.28 ± 10.45	0.00 ± 0.00	0.68 ± 1.07	1.11 ± 2.06	0.00 ± 0.00	0.00 ± 0.00	1.35 ± 0.68	36.18 ± 11.21	44.65 ± 15.23	8.47 ± 18.91
LBCC	11/12/87	24	13.02 ± 2.50	28.79 ± 13.57	0.00 ± 0.00	2.29 ± 1.27	10.74 ± 5.83	0.00 ± 0.00	0.00 ± 0.00	2.17 ± 4.17	57.21 ± 13.62	79.39 ± 15.19	22.18 ± 21.79
LBCC	11/13/87	24	4.13 ± 2.01	16.54 ± 8.73	0.00 ± 0.00	6.23 ± 1.30	15.06 ± 4.47	0.00 ± 0.00	0.00 ± 0.00	3.56 ± 0.93	45.31 ± 10.20	52.12 ± 15.04	6.61 ± 18.17
LBCC	12/03/87	24	15.57 ± 2.77	74.36 ± 31.32	0.00 ± 0.00	5.87 ± 14.06	51.57 ± 18.49	0.00 ± 0.00	0.00 ± 0.00	4.24 ± 1.43	137.61 ± 36.89	193.76 ± 16.82	36.15 ± 40.54
LBCC	12/10/87	24	13.38 ± 3.37	62.25 ± 23.38	0.00 ± 0.00	0.82 ± 1.39	25.42 ± 12.54	0.00 ± 0.00	0.00 ± 0.00	2.90 ± 0.96	104.78 ± 26.79	104.93 ± 15.29	0.15 ± 30.85
LBCC	12/11/87	24	10.02 ± 2.51	53.47 ± 21.40	0.00 ± 0.00	6.75 ± 7.18	29.38 ± 10.99	0.00 ± 0.00	0.00 ± 0.00	1.92 ± 0.74	101.53 ± 24.45	107.59 ± 15.20	6.06 ± 28.79
RIVR	06/19/87	24	29.17 ± 3.48	16.94 ± 9.21	0.00 ± 0.00	4.70 ± 1.02	16.06 ± 4.93	1.69 ± 1.64	0.00 ± 0.00	8.55 ± 2.21	77.11 ± 11.47	103.16 ± 15.97	26.05 ± 19.66
RIVR	06/24/87	24	31.93 ± 4.19	21.71 ± 13.03	0.00 ± 0.00	11.81 ± 4.28	42.91 ± 8.47	2.40 ± 2.02	0.00 ± 0.00	7.84 ± 2.30	122.60 ± 16.69	147.68 ± 14.62	25.08 ± 22.19
RIVR	06/25/87	24	40.84 ± 4.62	26.99 ± 13.39	0.00 ± 0.00	11.05 ± 3.52	18.80 ± 8.31	2.83 ± 2.16	0.00 ± 0.00	6.70 ± 2.56	127.20 ± 17.03	159.74 ± 15.87	32.54 ± 23.28
RIVR	07/13/87	24	25.70 ± 3.43	16.03 ± 10.20	0.00 ± 0.00	6.42 ± 1.57	16.08 ± 4.74	4.84 ± 2.21	0.00 ± 0.00	2.26 ± 1.59	71.33 ± 12.25	92.46 ± 13.75	21.13 ± 18.42
RIVR	07/14/87	24	26.13 ± 3.32	17.16 ± 10.15	0.00 ± 0.00	9.54 ± 2.64	17.53 ± 5.08	2.41 ± 1.64	0.00 ± 0.00	4.55 ± 1.88	77.32 ± 12.34	95.58 ± 13.90	18.26 ± 18.59
RIVR	07/15/87	24	23.45 ± 3.18	13.04 ± 9.03	0.00 ± 0.00	11.71 ± 3.93	28.97 ± 6.23	2.65 ± 1.59	0.00 ± 0.00	2.87 ± 1.52	82.68 ± 12.00	102.83 ± 13.94	20.15 ± 18.39
RIVR	08/27/87	24	48.96 ± 4.73	16.15 ± 9.67	0.00 ± 0.00	10.09 ± 3.13	34.68 ± 8.26	7.32 ± 3.44	0.00 ± 0.00	5.69 ± 2.09	122.88 ± 14.44	145.27 ± 18.32	22.39 ± 23.33
RIVR	09/03/87	24	39.05 ± 4.23	16.71 ± 10.04	0.00 ± 0.00	7.19 ± 1.85	10.58 ± 4.64	10.34 ± 3.88	0.00 ± 0.00	5.12 ± 1.88	137.13 ± 15.41	163.76 ± 14.56	26.63 ± 21.20
RIVR	08/29/87	24	39.75 ± 4.01	15.11 ± 9.10	0.00 ± 0.00	14.47 ± 4.69	44.88 ± 8.91	2.90 ± 2.11	0.00 ± 0.00	4.20 ± 1.77	121.30 ± 14.03	143.29 ± 14.41	21.99 ± 20.11
RIVR	09/02/87	24	21.83 ± 2.96	8.64 ± 5.86	0.00 ± 0.00	3.96 ± 1.14	9.56 ± 3.27	1.91 ± 1.33	0.00 ± 0.00	1.60 ± 0.68	53.50 ± 7.64	72.25 ± 14.57	18.75 ± 16.45
RIVR	09/03/87	24	16.44 ± 4.54	33.09 ± 17.13	0.00 ± 0.00	5.47 ± 4.22	47.28 ± 12.80	17.47 ± 5.88	0.00 ± 0.00	1.89 ± 0.72	121.64 ± 22.85	127.00 ± 14.62	5.36 ± 27.13

Table B-4 (continued)
Twenty-Four Hour Average Source Contributions to PM₁₀ Mass at SCAQS Sites Between 6/19/87 to 12/11/87

Site*	Date/Time*	Primary Geological SCE ± σ [μg/m ³]	Motor Veh. Exhaust SCE ± σ [μg/m ³]	Vegetative Burning SCE ± σ [μg/m ³]	Secondary Sulfate SCE ± σ [μg/m ³]	Secondary Nitrate SCE ± σ [μg/m ³]	Construction (Limestone) SCE ± σ [μg/m ³]	Oil Combustion SCE ± σ [μg/m ³]	Marine Aerosol SCE ± σ [μg/m ³]	Measured Mass ± σ [μg/m ³]	Unexplained Mass ± σ [μg/m ³]
										Calculated Mass ± σ [μg/m ³]	
RIVR	12/03/87	24	36.50 ± 7.47	51.44 ± 25.00	0.00 ± 0.00	5.29 ± 9.50	83.88 ± 18.95	15.88 ± 6.68	0.00 ± 0.00	2.12 ± 0.87	195.11 ± 33.22
RIVR	12/10/87	24	17.91 ± 5.48	34.47 ± 15.58	0.00 ± 0.00	0.06 ± 0.34	24.82 ± 9.15	17.37 ± 5.52	0.00 ± 0.00	0.86 ± 0.65	95.49 ± 19.69
RIVR	12/11/87	24	12.49 ± 4.77	25.26 ± 13.56	0.00 ± 0.00	0.13 ± 0.35	10.65 ± 6.95	13.85 ± 5.47	0.00 ± 0.00	0.29 ± 0.35	62.66 ± 16.90
SNIC	06/19/87	24	1.15 ± 1.22	1.06 ± 1.87	0.00 ± 0.00	2.76 ± 0.20	1.12 ± 0.70	0.00 ± 0.00	0.00 ± 0.00	8.23 ± 1.44	15.38 ± 3.57
SNIC	06/24/87	24	0.99 ± 0.83	1.40 ± 1.54	0.00 ± 0.00	3.85 ± 0.28	0.58 ± 0.45	0.00 ± 0.00	0.00 ± 0.00	6.52 ± 1.40	13.74 ± 2.90
SNIC	06/25/87	24	1.46 ± 0.92	1.06 ± 1.46	0.00 ± 0.00	3.43 ± 0.26	0.53 ± 0.42	0.00 ± 0.00	0.00 ± 0.00	6.45 ± 1.43	13.66 ± 3.05
SNIC	07/13/87	24	0.11 ± 0.28	0.39 ± 1.62	0.00 ± 0.00	2.32 ± 0.22	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	2.32 ± 0.90	5.64 ± 2.04
SNIC	07/14/87	24	0.04 ± 0.13	0.54 ± 1.47	0.00 ± 0.00	2.16 ± 0.21	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	1.47 ± 0.66	4.22 ± 1.80
SNIC	07/15/87	24	0.06 ± 0.16	0.43 ± 1.39	0.00 ± 0.00	1.52 ± 1.00	0.11 ± 0.56	0.00 ± 0.00	0.00 ± 0.00	0.21 ± 0.31	2.33 ± 1.72
SNIC	08/27/87	24	2.39 ± 0.84	0.44 ± 1.24	0.00 ± 0.00	4.10 ± 1.44	0.74 ± 0.75	0.00 ± 0.00	0.00 ± 0.00	2.96 ± 0.93	10.65 ± 2.15
SNIC	08/28/87	24	5.41 ± 1.30	0.75 ± 0.92	0.00 ± 0.00	6.30 ± 0.58	0.93 ± 0.80	0.00 ± 0.00	0.00 ± 0.00	4.97 ± 1.21	18.36 ± 2.48
SNIC	08/29/87	24	4.02 ± 1.13	2.22 ± 3.91	0.00 ± 0.00	5.00 ± 0.54	1.37 ± 0.80	0.00 ± 0.00	0.00 ± 0.00	4.28 ± 1.04	16.90 ± 4.42
SNIC	09/02/87	24	1.97 ± 0.71	0.64 ± 1.45	0.00 ± 0.00	3.98 ± 0.29	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	6.21 ± 1.25	12.80 ± 2.24
SNIC	09/03/87	24	0.20 ± 0.58	0.42 ± 1.16	0.00 ± 0.00	4.82 ± 0.41	0.11 ± 0.28	0.00 ± 0.00	0.00 ± 0.00	3.17 ± 0.91	8.71 ± 1.92
											13.47 ± 3.95
											4.76 ± 14.08

* See Table 3-2 for site names.

Sampling periods for the summer campaign are: 0000 - 0500, 0300 - 0900, 0900 - 1300, 1300 - 1700, and 1700 - 2400 PST, between 6/19/87 and 9/3/87.

Sampling periods for the fall campaign are: 0000 - 0600, 0600 - 1000, 1000 - 1400, 1400 - 1800, 1800 - 2400 PST, between 11/11/87 and 12/11/87.

APPENDIX C

SUMMARY OF SCAQS NONMETHANE HYDROCARBON SOURCE CONTRIBUTION ESTIMATES

Table C-1
Individual Source Contribution Estimates to NMHC at SCAQS Sites

Site	Date	Vehicle Emission (ug/m ³)	Liquid Gasoline (ug/m ³)	Gasoline Vapor (ug/m ³)	SCE ± 1σ (ug/m ³)	Architectural Coatings SCE ± 1σ (ug/m ³)	Degreasers SCE ± 1σ (ug/m ³)	Biologics SCE ± 1σ (ug/m ³)	Commercial Natural Gas SCE ± 1σ (ug/m ³)	Geographic Natural Gas SCE ± 1σ (ug/m ³)	Industrial Paints SCE ± 1σ (ug/m ³)	Unfinished Paints SCE ± 1σ (ug/m ³)	Wood Preservatives SCE ± 1σ (ug/m ³)	Calculated Mass (ug/m ³)		Measured Mass (ug/m ³)	
														SCE ± 1σ (ug/m ³)	SCE ± 1σ (ug/m ³)		
AN/AH	8/06/15	6	1412 ± 118	68 ± 4	0.0	1335 ± 4	42	0.8 ± 0.6	2.4 ± 1.1	0.0 ± 0.0	69 ± 22	0.0 ± 0.0	117 ± 2	2.4	0.0 ± 0.0	150 ± 4	0.0 ± 0.0
AN/AH	8/06/15	15	1160 ± 119	60 ± 4	0.0	300 ± 4	56	0.9 ± 0.6	1.6 ± 1.0	0.5 ± 0.3	100 ± 55	55 ± 17.9	3.9 ± 1.7	165 ± 5	165 ± 16.5	1750 ± 157	
AN/AH	8/07/15	6	2103 ± 371	371 ± 2	238	1795 ± 4	225	3.2 ± 1.3	5.5 ± 1.6	0.7 ± 0.4	317 ± 81	250 ± 156	12.5 ± 15.6	57.0 ± 51.5	50.1 ± 57.0	596 ± 18.0	
AN/AH	8/07/15	11	1064 ± 175	193 ± 2	103	204 ± 4	51	0.6 ± 0.6	1.4 ± 2.5	0.8 ± 0.5	0.0 ± 0.0	186 ± 58	108 ± 108	3.0 ± 3.0	55.5 ± 15.6	247.1 ± 27.1	240.1 ± 10.1
AN/AH	8/07/14	11	1075 ± 184	295 ± 4	122	253 ± 4	59	1.5 ± 0.7	10.4 ± 1.9	0.7 ± 0.3	47 ± 27	89 ± 82	47.6 ± 9.2	145 ± 81	265 ± 27.4	212.3 ± 7.9	
AN/AH	8/07/14	15	1750 ± 272	303 ± 4	156	171 ± 4	80	1.9 ± 0.8	11.4 ± 2.1	0.9 ± 0.4	0.0 ± 0.0	227 ± 85	242 ± 85	5.6 ± 5.6	37.2 ± 14.7	360 ± 37.1	319.6 ± 10.8
AN/AH	8/07/15	6	1573 ± 114	60 ± 2	0.0	119 ± 2	42	1.0 ± 0.7	11.3 ± 2.1	0.2 ± 0.3	0.0 ± 0.0	0.0 ± 0.0	10.0 ± 10.0	1.9 ± 1.9	0.0 ± 0.0	191.6 ± 12.5	177.8 ± 5.2
AN/AH	8/07/15	11	955 ± 153	282 ± 2	93	0.0 ± 0.0	0.0 ± 0.0	0.6 ± 0.6	9.2 ± 1.8	0.1 ± 0.3	0.0 ± 0.0	78 ± 41	4.9 ± 4.9	1.6 ± 1.6	16.9 ± 8.7	20.6 ± 6.4	
AN/AH	8/07/15	15	908 ± 165	293 ± 4	100	149 ± 4	42	0.6 ± 0.6	5.2 ± 1.1	0.6 ± 0.3	0.0 ± 0.0	93 ± 51	7.4 ± 7.4	2.1 ± 2.1	24.9 ± 12.4	18.5 ± 6.5	
AN/AH	8/08/17	6	2113 ± 409	274 ± 4	322	1618 ± 4	239	4.6 ± 1.9	24.3 ± 4.2	0.8 ± 0.5	0.0 ± 0.0	323 ± 134	13.9 ± 13.4	4.3 ± 4.3	43.2 ± 27.5	768.2 ± 65.4	
AN/AH	8/08/27	11	2161 ± 359	498 ± 2	224	797 ± 4	139	21 ± 10	200 ± 34	0.8 ± 0.4	11.4 ± 5.6	37.5 ± 15.1	34.0 ± 8.2	17.0 ± 17.0	469.2 ± 50.6	429.5 ± 12.8	
AN/AH	8/08/18	6	1309 ± 210	482 ± 4	153	393 ± 4	81	1.5 ± 0.8	18.6 ± 3.4	0.3 ± 0.3	10.3 ± 3.9	210 ± 105	212 ± 54	29.7 ± 29.7	12.0 ± 12.0	321.8 ± 14.0	
AN/AH	8/08/28	11	1968 ± 329	497 ± 4	207	746 ± 4	130	2.5 ± 1.0	18.9 ± 3.2	1.0 ± 0.4	9.8 ± 5.2	39.1 ± 16.5	31.2 ± 7.7	50.3 ± 50.3	18.9 ± 18.9	474.0 ± 48.5	
AN/AH	8/08/18	15	1746 ± 284	431 ± 4	178	912 ± 4	124	1.3 ± 0.9	9.7 ± 1.9	0.8 ± 0.4	10.3 ± 3.2	0.0 ± 0.0	28.9 ± 5.7	0.0 ± 0.0	359.8 ± 16.1	319.3 ± 8.8	
AN/AH	8/08/18	6	1340 ± 239	598 ± 2	151	454 ± 4	76	0.6 ± 0.0	6.4 ± 1.5	7.5 ± 1.7	10.7 ± 2.9	0.0 ± 0.0	25.9 ± 5.1	16.0 ± 11.4	325.6 ± 12.8	108.5 ± 10.1	
AN/AH	8/08/19	11	1172 ± 112	60 ± 2	0.0	314 ± 4	60	0.8 ± 0.6	7.1 ± 1.5	0.6 ± 0.3	0.0 ± 0.0	19.8 ± 6.0	12.5 ± 3.3	0.0 ± 0.0	108.9 ± 14.3	179.3 ± 11.1	
AN/AH	8/08/19	15	1005 ± 105	60 ± 2	0.0	218 ± 4	46	0.7 ± 0.6	4.5 ± 1.2	0.4 ± 0.3	0.0 ± 0.0	12.7 ± 5.1	9.8 ± 9.8	2.6 ± 2.6	40.7 ± 11.6	191.1 ± 17.4	
AN/AH	8/08/19	15	7552 ± 1251	1425 ± 2	829	1871 ± 4	407	5.8 ± 3.2	66.0 ± 11.0	2.2 ± 1.0	32.6 ± 17.7	81.4 ± 51.8	84.8 ± 22.1	0.0 ± 0.0	1557.7 ± 167.5	1519.6 ± 39.4	
AN/AH	8/09/02	6	2543 ± 416	446 ± 4	254	1067 ± 4	171	2.2 ± 1.1	14.5 ± 2.6	1.9 ± 0.6	22.2 ± 7.4	34.0 ± 17.0	61.0 ± 41.0	1.1 ± 1.1	285 ± 285	63.5 ± 63.3	
AN/AH	8/09/02	15	1924 ± 301	314 ± 4	174	165 ± 4	57	0.9 ± 0.8	15.9 ± 2.8	0.1 ± 0.1	20.2 ± 3.2	32 ± 32	0.0 ± 0.0	45.5 ± 16.8	322.9 ± 19.1	309.5 ± 11.7	
AN/AH	8/09/01	11	1695 ± 259	386 ± 4	150	131 ± 4	51	0.9 ± 0.8	17.5 ± 3.1	1.2 ± 0.4	0.0 ± 0.0	21.5 ± 8.0	7.9 ± 3.1	20.3 ± 20.3	12.4 ± 12.4	290.2 ± 9.1	
AN/AH	8/09/01	15	1060 ± 145	183 ± 4	91	101 ± 3	33	0.8 ± 0.6	4.1 ± 1.2	0.6 ± 0.3	0.0 ± 0.0	0.0 ± 0.0	4.5 ± 4.5	0.9 ± 0.9	13.3 ± 7.1	157.7 ± 19.1	
AN/AH	8/09/01	12	515 ± 98	180 ± 4	80	0.0 ± 0.0	0.6 ± 0.5	5.8 ± 1.3	0.4 ± 0.3	0.0 ± 0.0	13.2 ± 3.1	3.1 ± 3.1	1.5 ± 1.5	63.5 ± 15.5	156.7 ± 20.1		
AN/AH	8/11/11	12	4989 ± 719	624 ± 4	503	917 ± 4	279	5.6 ± 3.2	28.7 ± 5.8	10.6 ± 2.6	0.0 ± 0.0	45.8 ± 38.1	36.0 ± 15.7	0.0 ± 0.0	1400.6 ± 174.1	1194.2 ± 37.1	
AN/AH	8/11/12	7	15601 ± 1980	303 ± 4	1519	181 ± 4	46.8	7.3 ± 5.0	42.8 ± 8.9	28 ± 17	0.4 ± 0.4	81 ± 18	0.0 ± 0.0	65.9 ± 65.9	12.0 ± 12.0	2064.7 ± 254.4	
AN/AH	8/11/12	16	2188 ± 422	890 ± 4	302	0.0 ± 0.0	1.6 ± 1.1	5.9 ± 1.7	0.5 ± 0.4	0.1 ± 0.1	22.2 ± 22.2	4.4 ± 4.4	61.2 ± 21.5	467.3 ± 57.3	417.9 ± 16.2		
AN/AH	8/11/13	7	2194 ± 179	1415 ± 4	194	0.0 ± 0.0	2.7 ± 2.2	17.1 ± 3.2	0.4 ± 0.4	0.0 ± 0.0	69.8 ± 12.2	11.7 ± 11.7	5.9 ± 5.9	48.3 ± 22.0	510.8 ± 54.6		
AN/AH	8/11/20	12	5187 ± 742	891 ± 4	510	450 ± 4	151	2.2 ± 1.7	18.8 ± 3.8	0.5 ± 0.6	0.0 ± 0.0	37.1 ± 21.4	31.6 ± 9.1	6.7 ± 6.7	35.8 ± 35.8	810.6 ± 100.8	
AN/AH	8/11/20	16	4989 ± 719	473 ± 4	316	461 ± 4	119	2.5 ± 1.0	12.0 ± 2.1	0.2 ± 0.3	9.3 ± 1.6	44.6 ± 20.8	32.7 ± 9.3	0.0 ± 0.0	718.4 ± 92.6	673.9 ± 18.6	
AN/AH	8/11/20	7	15601 ± 1980	702 ± 4	213	216 ± 4	102	0.0 ± 0.0	7.8 ± 1.8	0.3 ± 0.3	0.0 ± 0.0	69.8 ± 13.0	14.0 ± 14.0	6.2 ± 6.2	21.5 ± 21.5	2064.7 ± 254.4	
AN/AH	8/11/20	12	3463 ± 549	814 ± 4	408	1255 ± 4	229	1.0 ± 1.4	17.7 ± 3.4	0.9 ± 0.5	0.0 ± 0.0	62.1 ± 16.9	19.9 ± 19.9	5.7 ± 5.7	616.7 ± 282.2	607.0 ± 606.1	
AN/AH	8/11/20	16	8861 ± 1304	916 ± 4	1442 ± 4	346 ± 4	4.9 ± 3.0	35.7 ± 6.6	1.4 ± 1.0	0.0 ± 0.0	51.4 ± 16.7	64.0 ± 17.0	0.0 ± 0.0	1023.5 ± 168.1	1275.4 ± 154.4		
AZ/AH	8/07/15	15	1168 ± 211	363 ± 4	124	47 ± 4	4.6	0.9 ± 0.7	9.8 ± 1.9	0.4 ± 0.3	0.0 ± 0.0	16.6 ± 6.6	8.3 ± 6.3	2.7 ± 2.7	29.1 ± 10.8	275.9 ± 7.9	
AZ/AH	8/08/14	15	2381 ± 379	473 ± 4	148	40.9 ± 4.8	9.6 ± 2.5	1.0 ± 0.9	4.9 ± 2.0	0.1 ± 0.3	0.0 ± 0.0	145 ± 101	42.9 ± 101	1.1 ± 1.1	41.1 ± 41.1	171.1 ± 11.1	
AZ/AH	8/08/15	6	2293 ± 313	493 ± 4	150	216 ± 4	102	0.0 ± 0.0	7.8 ± 1.8	0.3 ± 0.3	0.0 ± 0.0	69.8 ± 13.0	14.0 ± 14.0	6.2 ± 6.2	21.5 ± 21.5	212.9 ± 11.6	
AZ/AH	8/07/14	15	1960 ± 108	46.6 ± 4	189	295 ± 4	87	4.4 ± 1.2	9.7 ± 2.1	0.4 ± 0.3	0.0 ± 0.0	68.1 ± 14.1	22.0 ± 12.5	6.6 ± 6.6	21.5 ± 21.5	161.4 ± 42.1	
AZ/AH	8/07/14	6	2703 ± 421	100.0 ± 4	252	0.0 ± 0.0	1.6 ± 1.1	12.9 ± 1.6	0.1 ± 0.4	0.0 ± 0.0	55.5 ± 12.2	11.8 ± 11.8	5.6 ± 5.6	121.4 ± 24.1	150.8 ± 10.6		
AZ/AH	8/08/27	11	2921 ± 416	46.2 ± 4	240	198 ± 4	98 ± 4	0.2 ± 0.4	0.0 ± 0.0	40.0 ± 10.1	1.1 ± 1.1	0.0 ± 0.0	41.1 ± 1.1	0.0 ± 0.0	411.4 ± 51.2	112.7 ± 10.5	

Table C-1
Individual Source Contribution Estimates to NMHC at SCAQS Sites

Vehicle	Exhaust	Liquid			Gasoline			Architectural			Degassing			Biogenic			Unrelated			Geologic			
		SCE ± 1σ	SCE ± 1σ	(ug/m³)	SCE ± 1σ	SCE ± 1σ	(ug/m³)	SCE ± 1σ	SCE ± 1σ	(ug/m³)	SCE ± 1σ	SCE ± 1σ	(ug/m³)	SCE ± 1σ	SCE ± 1σ	(ug/m³)	SCE ± 1σ	SCE ± 1σ	(ug/m³)	SCE ± 1σ	SCE ± 1σ	(ug/m³)	
AZ115	AZ115	223.8 ± 33.1	332.4 ± 18.7	87.2 ± 7.5	11.3 ± 0.9	100.4 ± 2.1	0.5 ± 0.3	0.0 ± 0.0	36.7 ± 10.6	16.0 ± 5.0	45.3 ± 4.7	17.9 ± 1.7	37.5 ± 4.4	44.1 ± 4.3	162.8 ± 16.2	12.7 ± 1.1	162.8 ± 16.2	12.7 ± 1.1	162.8 ± 16.2	12.7 ± 1.1	162.8 ± 16.2	12.7 ± 1.1	
AZ115	AZ115	253.3 ± 30.7	61.0 ± 2.1	26.3 ± 9.9	24.1 ± 1.1	146.4 ± 2.0	0.5 ± 0.4	0.0 ± 0.0	44.6 ± 12.4	20.2 ± 6.1	103.9 ± 10.9	30.6 ± 6.1	52.7 ± 5.4	56.7 ± 5.4	499.4 ± 49.4	20.0 ± 1.8	499.4 ± 49.4	20.0 ± 1.8	499.4 ± 49.4	20.0 ± 1.8	499.4 ± 49.4	20.0 ± 1.8	
AZ115	AZ115	271.1 ± 27.3	6.0 ± 0.0	147.3 ± 20.2	24.3 ± 1.2	70.4 ± 1.8	0.3 ± 0.4	30.0 ± 7.9	21.0 ± 4.6	16.3 ± 4.7	4.4 ± 1.0	29.4 ± 17.6	55.8 ± 5.4	61.7 ± 6.1	695.5 ± 69.5	8.4 ± 0.8	695.5 ± 69.5	8.4 ± 0.8	695.5 ± 69.5	8.4 ± 0.8	695.5 ± 69.5	8.4 ± 0.8	
AZ115	AZ115	217.8 ± 42.4	393.2 ± 35.9	0.0 ± 0.0	37.4 ± 1.9	181.2 ± 3.5	10.4 ± 0.5	0.0 ± 0.0	110.9 ± 17.3	44.6 ± 12.7	200.1 ± 17.3	55.9 ± 6.1	69.9 ± 6.1	81.6 ± 8.1	1062.6 ± 106.2	37.4 ± 3.4	1062.6 ± 106.2	37.4 ± 3.4	1062.6 ± 106.2	37.4 ± 3.4	1062.6 ± 106.2	37.4 ± 3.4	
AZ115	AZ115	217.8 ± 42.4	393.2 ± 35.9	0.0 ± 0.0	37.4 ± 1.9	181.2 ± 3.5	10.4 ± 0.5	0.0 ± 0.0	110.9 ± 17.3	44.6 ± 12.7	200.1 ± 17.3	55.9 ± 6.1	69.9 ± 6.1	81.6 ± 8.1	1062.6 ± 106.2	37.4 ± 3.4	1062.6 ± 106.2	37.4 ± 3.4	1062.6 ± 106.2	37.4 ± 3.4	1062.6 ± 106.2	37.4 ± 3.4	
BURK	BURK	248.8 ± 39.5	362.5 ± 23.3	46.8 ± 11.3	14.8 ± 1.0	124.4 ± 2.5	0.6 ± 0.4	103.4 ± 5.3	193.4 ± 15.3	25.5 ± 6.4	54.7 ± 6.4	20.8 ± 1.4	45.6 ± 5.6	56.5 ± 5.6	417.3 ± 41.7	14.7 ± 1.3	417.3 ± 41.7	14.7 ± 1.3	417.3 ± 41.7	14.7 ± 1.3	417.3 ± 41.7	14.7 ± 1.3	
BURK	BURK	322.6 ± 52.9	190.5 ± 33.2	45.1 ± 15.6	47.4 ± 1.7	16.0 ± 1.0	10.4 ± 0.5	0.0 ± 0.0	91.8 ± 19.3	27.2 ± 9.6	83.7 ± 11.9	31.9 ± 7.5	74.6 ± 7.5	74.6 ± 7.5	746.8 ± 74.8	21.7 ± 1.7	746.8 ± 74.8	21.7 ± 1.7	746.8 ± 74.8	21.7 ± 1.7	746.8 ± 74.8	21.7 ± 1.7	
BURK	BURK	173.4 ± 17.1	66.4 ± 0.0	45.0 ± 3.8	14.4 ± 0.8	7.6 ± 1.7	0.1 ± 0.3	84.2 ± 3.7	19.2 ± 1.0	19.0 ± 4.9	11.3 ± 4.9	11.3 ± 4.9	38.6 ± 3.4	36.9 ± 3.4	369.9 ± 36.9	16.8 ± 1.6	369.9 ± 36.9	16.8 ± 1.6	369.9 ± 36.9	16.8 ± 1.6	369.9 ± 36.9	16.8 ± 1.6	
BURK	BURK	347.9 ± 54.3	61.4 ± 3.2	53.7 ± 15.4	26.4 ± 1.3	10.8 ± 2.4	0.6 ± 0.4	155.4 ± 7.9	43.4 ± 11.4	48.0 ± 24.5	11.4 ± 24.5	61.2 ± 7.6	7.6 ± 1.1	577.0 ± 57.0	18.4 ± 1.4	577.0 ± 57.0	18.4 ± 1.4	577.0 ± 57.0	18.4 ± 1.4	577.0 ± 57.0	18.4 ± 1.4		
BURK	BURK	311.1 ± 44.2	49.4 ± 26.8	64.7 ± 14.5	24.2 ± 1.2	104.4 ± 2.3	0.6 ± 0.4	0.0 ± 0.0	57.9 ± 15.1	29.3 ± 8.7	60.4 ± 9.0	5.7 ± 9.0	52.7 ± 5.0	58.0 ± 5.0	469.4 ± 46.4	11.8 ± 1.1	469.4 ± 46.4	11.8 ± 1.1	469.4 ± 46.4	11.8 ± 1.1	469.4 ± 46.4	11.8 ± 1.1	
BURK	BURK	270.6 ± 21.5	32.9 ± 19.8	39.8 ± 9.5	16.4 ± 0.9	8.6 ± 0.4	0.0 ± 0.0	42.7 ± 18.9	21.8 ± 6.1	61.0 ± 6.1	0.0 ± 0.0	34.6 ± 4.1	41.3 ± 4.1	344.0 ± 34.0	9.7 ± 0.7	344.0 ± 34.0	9.7 ± 0.7	344.0 ± 34.0	9.7 ± 0.7	344.0 ± 34.0	9.7 ± 0.7		
BURK	BURK	214.2 ± 34.3	61.1 ± 20.5	38.9 ± 10.5	37.2 ± 1.2	103.3 ± 2.2	0.4 ± 0.3	0.0 ± 0.0	54.0 ± 12.1	36.6 ± 8.8	31.4 ± 16.3	16.3 ± 4.5	45.9 ± 4.7	47.0 ± 4.7	435.6 ± 43.6	13.3 ± 1.3	435.6 ± 43.6	13.3 ± 1.3	435.6 ± 43.6	13.3 ± 1.3	435.6 ± 43.6	13.3 ± 1.3	
BURK	BURK	225.9 ± 20.7	60.0 ± 0.0	33.0 ± 9.0	57.2 ± 1.3	14.3 ± 2.7	0.8 ± 0.4	0.0 ± 0.0	60.4 ± 12.6	17.9 ± 5.9	9.9 ± 11.3	2.7 ± 11.3	99.2 ± 27.7	27.7 ± 39.1	474.2 ± 47.2	18.1 ± 1.1	474.2 ± 47.2	18.1 ± 1.1	474.2 ± 47.2	18.1 ± 1.1	474.2 ± 47.2	18.1 ± 1.1	
BURK	BURK	212.9 ± 34.8	65.1 ± 21.8	22.8 ± 9.7	20.4 ± 1.0	9.3 ± 1.9	0.4 ± 0.3	7.2 ± 5.6	36.0 ± 18.9	15.0 ± 7.6	31.9 ± 7.6	4.7 ± 7.6	49.8 ± 19.0	49.5 ± 19.5	428.9 ± 42.9	14.1 ± 1.1	428.9 ± 42.9	14.1 ± 1.1	428.9 ± 42.9	14.1 ± 1.1	428.9 ± 42.9	14.1 ± 1.1	
BURK	BURK	87.6714	49.7	147.1 ± 30.2	51.7 ± 14.0	2.6 ± 1.4	11.6 ± 3.1	0.6 ± 0.4	0.0 ± 0.0	48.9 ± 15.9	37.0 ± 9.3	69.0 ± 28.7	28.7 ± 28.7	67.9 ± 6.8	68.9 ± 6.8	640.6 ± 64.6	21.5 ± 1.5	640.6 ± 64.6	21.5 ± 1.5	640.6 ± 64.6	21.5 ± 1.5	640.6 ± 64.6	21.5 ± 1.5
BURK	BURK	239.9 ± 38.3	111.7 ± 23.2	22.5 ± 9.3	11.1 ± 1.0	11.9 ± 2.4	0.7 ± 0.4	0.0 ± 0.0	34.3 ± 12.1	27.0 ± 6.8	54.1 ± 22.2	12.2 ± 22.2	50.2 ± 5.2	52.8 ± 5.2	491.0 ± 49.1	16.4 ± 1.4	491.0 ± 49.1	16.4 ± 1.4	491.0 ± 49.1	16.4 ± 1.4	491.0 ± 49.1	16.4 ± 1.4	
BURK	BURK	237.0 ± 37.2	96.3 ± 22.6	16.1 ± 9.2	35.4 ± 1.2	8.8 ± 2.0	0.4 ± 0.0	0.0 ± 0.0	44.0 ± 12.6	17.9 ± 5.9	35.8 ± 18.7	18.7 ± 18.7	44.1 ± 50.1	45.9 ± 5.1	459.6 ± 45.6	14.1 ± 1.1	459.6 ± 45.6	14.1 ± 1.1	459.6 ± 45.6	14.1 ± 1.1	459.6 ± 45.6	14.1 ± 1.1	
BURK	BURK	262.5 ± 43.9	83.9 ± 27.5	48.7 ± 13.6	30.4 ± 1.2	13.8 ± 2.7	0.4 ± 0.4	11.1 ± 6.6	50.2 ± 18.9	30.4 ± 9.2	67.5 ± 24.0	13.6 ± 24.0	51.2 ± 51.2	51.1 ± 51.1	534.6 ± 53.4	18.4 ± 1.4	534.6 ± 53.4	18.4 ± 1.4	534.6 ± 53.4	18.4 ± 1.4	534.6 ± 53.4	18.4 ± 1.4	
BURK	BURK	244.7 ± 39.0	23.3 ± 23.3	31.3 ± 9.9	39.4 ± 1.3	9.4 ± 2.0	0.4 ± 0.4	0.0 ± 0.0	33.1 ± 12.1	24.3 ± 6.4	24.0 ± 17.8	4.7 ± 17.8	47.0 ± 5.1	51.7 ± 51.7	441.6 ± 44.1	13.6 ± 1.6	441.6 ± 44.1	13.6 ± 1.6	441.6 ± 44.1	13.6 ± 1.6	441.6 ± 44.1	13.6 ± 1.6	
BURK	BURK	87.0715	10.0	67.2 ± 55.3	14.6 ± 14.6	16.4 ± 4.4	22.5 ± 4.0	0.2 ± 0.3	7.9 ± 5.2	0.0 ± 0.0	40.2 ± 7.8	22.8 ± 6.0	60.4 ± 60.4	60.4 ± 95.0	769.8 ± 76.8	56.4 ± 5.4	769.8 ± 76.8	56.4 ± 5.4	769.8 ± 76.8	56.4 ± 5.4	769.8 ± 76.8	56.4 ± 5.4	
BURK	BURK	87.0827	11.0	40.1 ± 61.7	71.4 ± 55.3	121.0 ± 22.0	15.6 ± 8.3	0.8 ± 0.0	11.6 ± 2.3	0.6 ± 0.4	60.4 ± 11.2	11.6 ± 4.3	27.5 ± 27.5	17.6 ± 17.6	414.0 ± 41.4	16.4 ± 1.4	414.0 ± 41.4	16.4 ± 1.4	414.0 ± 41.4	16.4 ± 1.4	414.0 ± 41.4	16.4 ± 1.4	
BURK	BURK	87.0827	15.0	35.1 ± 35.1	10.0 ± 0.0	49.4 ± 2.6	20.1 ± 4.7	1.5 ± 1.0	23.8 ± 14.6	5.7 ± 2.2	44.4 ± 13.6	9.0 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	11.5 ± 5.0	
BURK	BURK	87.0828	6.0	71.4 ± 10.0	21.2 ± 8.3	25.4 ± 1.8	18.1 ± 1.1	0.0 ± 0.0	18.1 ± 1.1	0.0 ± 0.0	66.9 ± 22.5	9.6 ± 9.6	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	44.4 ± 44.4	
BURK	BURK	87.0828	11.0	49.9 ± 12.7	71.7 ± 11.6	49.8 ± 4.4	22.5 ± 4.0	0.2 ± 0.3	28.9 ± 0.0	0.0 ± 0.0	51.9 ± 51.9	9.0 ± 9.0	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	42.6 ± 42.6	
BURK	BURK	87.0829	6.0	48.1 ± 42.7	0.0 ± 0.0	55.6 ± 18.9	44.4 ± 3.1	0.4 ± 0.6	48.1 ± 14.1	7.9 ± 4.8	25.9 ± 25.9	9.2 ± 9.2	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	99.5 ± 99.5	
BURK	BURK	87.0829	11.0	40.5 ± 37.4	0.0 ± 0.0	105.7 ± 19.9	34.4 ± 1.5	0.2 ± 0.3	13.5 ± 2.8	0.2 ± 0.3	50.7 ± 23.0	7.9 ± 7.9	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	16.6 ± 16.6	
BURK	BURK	87.0829	15.0	19.4 ± 29.3	90.0 ± 19.9	0.0 ± 0.0	11.1 ± 0.9	7.2 ± 1.7	0.4 ± 0.3	19.1 ± 4.8	0.0 ± 0.6	66.4 ± 51.2	51.2 ± 51.2	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	19.3 ± 19.3	
BURK	BURK	87.0829	15.0	19.7 ± 21.6	40.3 ± 84.3	326.3 ± 49.0	13.3 ± 1.4	32.7 ± 6.3	19.2 ± 1.1	48.6 ± 10.1	0.0 ± 0.4	0.0 ± 0.0	35.2 ± 35.2	10.4 ± 10.4	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	
BURK	BURK	87.0829	11.0	40.6 ± 61.4	34.8 ± 34.8	122.8 ± 21.3	22.4 ± 1.5	16.7 ± 3.3	10.4 ± 0.5	45.0 ± 3.7	4.0 ± 0.0	0.0 ± 0.0	17.8 ± 17.8	9.0 ± 9.0	37.1 ± 37.1	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	
BURK	BURK	87.0829	6.0	392.6 ± 64.6	40.5 ± 40.5	58.9 ± 18.1	31.2 ± 1.6	17.8 ± 3.5	0.8 ± 0.5	20.0 ± 9.3	4.0 ± 4.0	44.8 ± 44.8	2.8 ± 2.8	28.5 ± 28.5	9.2 ± 9.2	42.9 ± 42.9	4.0 ± 4.0	42.9 ± 42.9	4.0 ± 4.0	42.9 ± 42.9	4.0 ± 4.0	42.9 ± 42.9	4.0 ± 4.0
BURK	BURK	87.0829	11.0	286.3 ± 40.7	80.5 ± 19.1	27.0 ± 2.0	0.0 ± 0.0	29.4 ± 1.2	13.9 ± 2.8	0.7 ± 0.4	7.0 ± 4.4	0.0 ± 0.0	76.6 ± 76.6	8.8 ± 8.8	14.2 ± 14.2	14.2 ± 14.2	14.2 ± 14.2	14.2 ± 14.2	14.2 ± 14.2	14.2 ± 14.2	14.2 ± 14.2	14.2 ± 14.2	
BURK	BURK	87.0829	15.0	19.2 ± 31.6	80.5 ± 19.1	27.9 ± 2.0	8.6 ± 1.0	11.4 ± 0.9	11.4 ± 1.1	0.0 ± 0.3	0.0 ± 0.0	35.2 ± 35.2	10.4 ± 10.4	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	16.2 ± 16.2	
BURK	BURK	87.0829	16.0	57.0 ± 89.0	22.0 ± 65.0	62.8 ± 21.7	3.4 ± 2.2	23.0 ± 4.6	0.7 ± 0.7	0.0 ± 0.0	66.9 ± 27.4	5.5 ± 5.5	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	14.7 ± 14.7	
BURK	BURK	87.0829	11.0	40.6 ± 150.6	30.0 ± 100.6	0.0 ± 0.0	60.4 ± 3.7	45.0 ± 8.7	24.3 ± 1.1	0.0 ± 0.0	17.6 ± 17.6	1.1 ± 1.1	55.8 ± 55.8	5.5 ± 5.5	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	
BURK	BURK	87.0829	16.0	40.7 ± 151.5	15.5 ± 15.5	32.0 ± 15.5	1.1 ± 1.1	15.2 ± 1.3	15.2 ± 1.3	0.0 ± 0.0	0.0 ± 0.0	17.6 ± 17.6	1.1 ± 1.1	55.8 ± 55.8	5.5 ± 5.5	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	10.4 ± 10.4	
BURK	BURK	87.0829	12.0	41.0 ± 151.5	42.1 ± 15.5	15.5 ± 1.1	1.1 ± 1.1	15.2 ± 1.3	15.2 ± 1.3	0.0 ± 0.0	0.0 ± 0.0	17.6 ± 17.6	1.1 ± 1.1	5									

Table C-1
Individual Source Contributions Estimates to NMHC at SCAQS Sites

Site/Str.	Date	Time (h) (EST)	Vehicle Emissions SCC + s(n) (ng/m^3)	Liquid Gasoline Vapor SCC + s(n) (ng/m^3)	Gasoline Vapor SCC + s(n) (ng/m^3)	Architectural Ceiling SCC + s(n) (ng/m^3)	Degassing SCC + s(n) (ng/m^3)	Biogenic SCC + s(n) (ng/m^3)	Commerce SCC + s(n) (ng/m^3)	Geologic SCC + s(n) (ng/m^3)	Natural Gas SCC + s(n) (ng/m^3)	Petroleum Gas SCC + s(n) (ng/m^3)	Unspecified SCC + s(n) (ng/m^3)	Calculated Measured			
														Mess	Mess		
HURK	871211	7	1941.5 ± 286.2	361.9 ± 209.0	226.9 ± 59.0	6.9 ± 6.1	61.7 ± 12.8	3.1 ± 2.1	36.4 ± 24.3	0.0 ± 0.0	84.9 ± 18.1	0.0 ± 0.0	2736.2 ± 160.8	2614.4 ± 77.9	0.0 ± 0.0	0.0 ± 0.0	
HURK	871211	12	490.9 ± 105.4	273.1 ± 76.6	128.3 ± 30.8	2.2 ± 2.5	27.6 ± 5.5	0.7 ± 0.8	46.0 ± 10.2	31.8 ± 11.1	0.0 ± 0.0	120.5 ± 13.7	1107.6 ± 31.5	0.0 ± 0.0	0.0 ± 0.0		
HURK	871211	16	1241.4 ± 191.3	417.7 ± 141.0	268.4 ± 61.6	10.2 ± 4.8	53.2 ± 10.6	1.2 ± 1.4	40.0 ± 0.0	205.7 ± 59.6	70.7 ± 26.9	0.0 ± 0.0	2083.5 ± 254.4	2083.5 ± 54.0	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870624	6	491.1 ± 77.3	86.4 ± 41.8	29.4 ± 15.6	3.4 ± 1.7	11.1 ± 2.7	0.7 ± 0.6	40.0 ± 0.0	56.0 ± 21.5	31.9 ± 9.8	60.3 ± 31.2	716.9 ± 21.1	716.9 ± 21.1	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870624	11	186.7 ± 34.4	103.1 ± 24.9	113.0 ± 17.1	1.7 ± 1.1	11.0 ± 2.6	0.1 ± 0.4	0.0 ± 0.0	26.5 ± 9.0	11.5 ± 4.4	50.9 ± 20.1	568.2 ± 51.6	533.6 ± 16.5	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870624	15	225.9 ± 36.2	49.6 ± 22.1	27.8 ± 9.8	1.7 ± 0.9	6.4 ± 1.6	0.2 ± 0.3	6.0 ± 4.9	30.4 ± 14.8	21.8 ± 6.0	41.5 ± 17.7	411.5 ± 49.9	387.4 ± 12.7	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870625	11	316.5 ± 48.4	69.2 ± 29.1	115.0 ± 19.5	3.1 ± 1.4	9.2 ± 2.2	0.7 ± 0.4	0.0 ± 0.0	75.4 ± 16.9	38.5 ± 10.4	0.0 ± 0.0	627.6 ± 63.0	599.7 ± 16.3	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870713	6	788.4 ± 43.5	28.8 ± 25.1	0.0 ± 0.0	5.8 ± 1.5	8.3 ± 1.9	0.6 ± 0.4	0.0 ± 0.0	79.7 ± 17.0	7.6 ± 5.9	35.4 ± 22.1	474.6 ± 36.7	512.7 ± 15.6	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870713	11	314.8 ± 27.9	6.0 ± 6.0	54.4 ± 12.6	9.7 ± 2.0	9.9 ± 2.1	0.8 ± 0.4	0.0 ± 0.0	46.2 ± 13.0	23.3 ± 6.9	86.7 ± 28.1	345.3 ± 41.5	356.4 ± 18.6	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870713	15	163.5 ± 22.1	41.6 ± 14.1	15.0 ± 4.9	2.6 ± 0.9	3.6 ± 1.2	0.4 ± 0.3	0.0 ± 0.0	15.8 ± 0.0	15.8 ± 2.9	23.5 ± 11.7	265.9 ± 28.9	264.1 ± 8.5	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870714	6	361.5 ± 39.6	61.8 ± 32.6	15.6 ± 8.6	3.4 ± 1.2	7.8 ± 1.8	0.4 ± 0.4	0.0 ± 0.0	10.9 ± 12.0	21.6 ± 5.8	31.7 ± 16.9	416.0 ± 51.2	416.0 ± 12.2	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870714	10	362.3 ± 54.6	110.0 ± 32.6	60.0 ± 15.4	2.9 ± 1.5	15.2 ± 3.0	0.5 ± 0.5	0.0 ± 0.0	30.2 ± 17.5	36.7 ± 9.5	47.3 ± 26.8	693.2 ± 75.1	634.5 ± 20.3	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870714	15	190.6 ± 25.9	49.0 ± 16.3	17.3 ± 5.7	2.2 ± 0.9	5.3 ± 1.4	0.3 ± 0.3	0.0 ± 0.0	8.5 ± 0.0	8.5 ± 1.7	23.4 ± 13.7	306.7 ± 34.2	296.1 ± 9.8	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870715	15	222.7 ± 35.6	83.3 ± 20.0	58.5 ± 9.4	1.4 ± 1.0	9.0 ± 1.9	0.5 ± 0.4	0.0 ± 0.0	20.6 ± 10.5	13.5 ± 4.2	27.1 ± 17.0	463.8 ± 50.4	471.5 ± 49.9	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870827	15	247.0 ± 35.4	161.0 ± 24.4	10.4 ± 6.7	1.2 ± 1.4	6.8 ± 1.9	0.4 ± 0.4	0.0 ± 0.0	10.1 ± 2.0	34.6 ± 23.6	49.2 ± 48.2	518.7 ± 17.4	492.2 ± 48.2	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870828	11	382.0 ± 83.5	74.0 ± 47.5	85.4 ± 19.6	6.6 ± 2.3	14.4 ± 3.3	0.6 ± 0.6	12.5 ± 7.5	0.0 ± 0.0	42.9 ± 8.6	73.8 ± 38.8	89.4 ± 106.1	818.9 ± 26.0	818.9 ± 26.0	0.0 ± 0.0	0.0 ± 0.0
CPLA	870828	15	215.5 ± 32.4	51.6 ± 18.3	24.3 ± 7.4	1.5 ± 0.9	7.0 ± 1.6	0.3 ± 0.3	0.0 ± 0.0	11.3 ± 9.4	12.3 ± 3.7	14.6 ± 3.7	448.9 ± 22.0	448.9 ± 22.0	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870829	6	319.8 ± 53.6	144.8 ± 35.1	52.5 ± 15.9	4.4 ± 1.6	7.3 ± 2.0	0.6 ± 0.4	21.6 ± 8.6	44.1 ± 23.7	37.8 ± 10.1	31.6 ± 23.4	664.5 ± 75.1	636.0 ± 18.5	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870902	6	454.9 ± 62.9	46.0 ± 30.1	78.4 ± 18.2	3.8 ± 2.4	35.2 ± 6.2	1.6 ± 0.8	0.0 ± 0.0	0.0 ± 0.0	10.5 ± 4.2	27.1 ± 17.0	1014.4 ± 87.8	1059.1 ± 30.4	0.0 ± 0.0	0.0 ± 0.0	
CPLA	870902	11	710.3 ± 107.6	27.6 ± 65.9	135.9 ± 32.2	6.6 ± 3.0	27.8 ± 5.5	0.9 ± 0.8	0.0 ± 0.0	119.9 ± 35.1	45.3 ± 15.8	0.0 ± 0.0	1327.2 ± 134.0	1327.2 ± 134.0	1231.1 ± 15.6	0.0 ± 0.0	
CPLA	870903	6	511.8 ± 78.5	178.9 ± 65.1	43.0 ± 16.7	5.6 ± 2.2	10.8 ± 2.8	1.0 ± 0.6	0.0 ± 0.0	38.9 ± 22.3	25.2 ± 8.4	51.8 ± 35.7	849.8 ± 101.7	845.0 ± 25.5	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871111	5	350.2 ± 52.6	149.0 ± 42.5	0.0 ± 0.0	2.4 ± 1.4	20.1 ± 1.7	0.7 ± 0.5	12.6 ± 4.9	41.2 ± 18.5	7.7 ± 5.4	70.7 ± 30.0	633.9 ± 76.9	613.2 ± 21.1	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871111	9	222.8 ± 43.6	91.8 ± 36.4	0.0 ± 0.0	2.9 ± 1.3	11.7 ± 2.6	0.7 ± 0.4	19.4 ± 3.5	0.0 ± 0.0	18.9 ± 3.7	11.4 ± 3.4	548.1 ± 65.1	532.0 ± 22.8	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871111	14	146.5 ± 24.1	48.0 ± 19.5	23.6 ± 6.6	1.5 ± 0.8	5.6 ± 1.4	0.3 ± 0.3	3.6 ± 3.2	19.3 ± 10.5	10.3 ± 3.5	57.4 ± 17.4	302.2 ± 11.7	302.2 ± 11.7	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871112	5	444.3 ± 70.5	193.3 ± 56.1	0.0 ± 0.0	3.7 ± 1.9	27.1 ± 5.0	1.0 ± 0.6	27.4 ± 21.1	84.6 ± 25.9	12.7 ± 8.6	62.1 ± 35.3	856.0 ± 101.5	841.2 ± 26.4	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871112	9	551.1 ± 78.6	641.2 ± 218.8	0.0 ± 0.0	3.4 ± 3.2	38.7 ± 7.1	1.8 ± 1.0	0.0 ± 0.0	0.0 ± 0.0	17.3 ± 1.5	15.3 ± 1.5	123.6 ± 106.8	1211.1 ± 18.5	1211.1 ± 18.5	0.0 ± 0.0	0.0 ± 0.0
CPLA	871112	14	712.7 ± 89.6	0.0 ± 0.0	765.5 ± 85.7	7.2 ± 3.5	26.6 ± 6.1	0.8 ± 1.1	0.0 ± 0.0	92.8 ± 34.8	60.1 ± 18.3	62.0 ± 50.4	1797.8 ± 140.2	1607.8 ± 47.7	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871113	5	347.6 ± 59.9	188.5 ± 48.0	37.4 ± 17.5	4.7 ± 1.8	19.2 ± 3.5	0.6 ± 0.5	0.0 ± 0.0	137.9 ± 23.1	30.1 ± 17.4	57.4 ± 35.2	840.3 ± 89.4	840.3 ± 25.7	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871113	9	436.3 ± 69.9	170.3 ± 51.8	50.8 ± 18.0	4.2 ± 1.9	17.3 ± 3.6	0.5 ± 0.5	0.0 ± 0.0	95.4 ± 22.9	43.4 ± 12.6	32.0 ± 30.4	810.7 ± 97.6	810.7 ± 23.4	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871113	12	383.8 ± 63.4	48.5 ± 48.5	26.0 ± 15.1	4.7 ± 1.8	19.3 ± 4.1	0.3 ± 0.5	0.0 ± 0.0	99.1 ± 21.7	52.4 ± 13.8	64.8 ± 32.3	830.4 ± 91.3	793.8 ± 25.1	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871113	14	165.9 ± 58.8	82.5 ± 44.7	84.2 ± 16.1	3.6 ± 1.5	16.5 ± 3.4	0.3 ± 0.5	10.6 ± 8.1	61.7 ± 23.9	62.3 ± 14.2	65.1 ± 29.0	745.5 ± 86.7	710.9 ± 22.5	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871203	5	488.6 ± 105.5	167.9 ± 80.4	74.9 ± 25.1	3.0 ± 2.3	34.4 ± 6.3	1.0 ± 0.8	24.9 ± 14.3	74.7 ± 41.5	35.6 ± 13.4	66.4 ± 6.0	105.0 ± 162.7	1091.7 ± 31.2	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871203	9	713.9 ± 104.8	194.0 ± 117.7	34.0 ± 18.7	2.7 ± 2.4	19.4 ± 4.3	1.1 ± 0.8	0.0 ± 0.0	41.3 ± 29.8	26.5 ± 18.2	72.5 ± 47.9	1010.4 ± 141.3	1026.4 ± 33.0	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871203	14	667.2 ± 57.6	0.0 ± 0.0	78.9 ± 21.4	3.0 ± 2.5	19.5 ± 4.7	0.3 ± 0.9	0.0 ± 0.0	46.7 ± 9.2	70.1 ± 59.9	79.7 ± 79.9	929.5 ± 31.1	929.5 ± 45.5	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871210	7	1079.5 ± 224.6	406.2 ± 172.0	98.7 ± 44.5	7.0 ± 5.0	50.9 ± 9.9	3.1 ± 1.7	36.7 ± 27.5	95.4 ± 85.9	60.1 ± 24.6	0.0 ± 0.0	227.8 ± 30.1	213.9 ± 58.3	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871210	9	853.0 ± 177.2	227.5 ± 90.7	28.9 ± 3.1	2.5 ± 2.2	27.9 ± 5.7	1.0 ± 0.7	0.0 ± 0.0	45.3 ± 25.8	22.0 ± 8.9	56.6 ± 41.0	1086.0 ± 161.8	1086.0 ± 26.9	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871210	14	721.6 ± 119.8	368.5 ± 94.5	352.1 ± 60.5	10.7 ± 3.8	32.9 ± 6.6	1.0 ± 0.9	0.0 ± 0.0	142.9 ± 39.4	37.5 ± 16.7	10.1 ± 65.1	1726.0 ± 12.9	1726.0 ± 102.0	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871210	14	155.9 ± 26.9	37.1 ± 16.8	29.4 ± 8.0	2.6 ± 0.9	49.1 ± 1.1	0.3 ± 0.3	12.8 ± 4.5	24.5 ± 11.2	18.8 ± 5.1	14.1 ± 10.5	100.7 ± 36.8	214.1 ± 8.4	0.0 ± 0.0	0.0 ± 0.0	
CPLA	871210	14	197.0 ± 12.5	51.2 ± 20.3	155.1 ± 9.5	2.1 ± 1.0	18.1 ± 1.5	0.7 ± 0.3	7.7 ± 4.4	21.6 ± 13.5	17.5 ± 1.5	0.0 ± 0.0	141.2 ± 43.8	141.2 ± 7.8	0.0 ± 0.0	0.0 ± 0.0	

Table C-1
Individual Source Contribution Estimates to NMHC at SCAQS Sites

Site #	Date	Time (m)	Vehicle	Liquid		Gaseous		Architectural		Depositing		Biogenic		Commercial		Geographic		Petroleum Gas		Liquefied		Measured		
				Entrain.	SCE ± σ _m	Mass	SCE ± σ _m	SCE ± σ _m																
				(kg/m ³)		(kg/m ³)		(kg/m ³)		(kg/m ³)		(kg/m ³)		(kg/m ³)		(kg/m ³)		(kg/m ³)		(kg/m ³)				
C-LAR	870614	11	270 ± 258	0.0	61.4 ± 111	23 ± 11	95 ± 21	10 ± 0.5	44 ± 50	36.5 ± 16.0	276 ± 7.2	7.2	38 ± 15.2	425.4 ± 37.5	372.8 ± 10.6									
C-LAR	870614	11	213.9 ± 212	0.0	79.8 ± 132	26 ± 10	99 ± 21	14 ± 0.4	17.1 ± 17	30.2 ± 13.2	51.0 ± 11.3	0.0	11.8	408.7 ± 53.2	555.6 ± 10.7									
C-LAR	870615	4	262.7 ± 432	104.1 ± 266	54.7 ± 112	27 ± 12	61 ± 17	0.5 ± 0.4	17.6 ± 50	0.0 ± 0.0	29.9 ± 6.0	92 ± 16.9	487.6 ± 55.2	445.0 ± 12.8										
C-LAR	870615	15	156.3 ± 158	0.0 ± 0.0	53.7 ± 94	17 ± 0.8	47 ± 13	0.1 ± 0.4	5.5 ± 33	22.7 ± 10.1	26.5 ± 6.0	0.0 ± 0.5	27.2 ± 8.5	272.1 ± 23.7	218.8 ± 6.3									
C-LAR	870713	6	235.5 ± 463	76.7 ± 261	37.3 ± 94	45 ± 14	63 ± 17	0.6 ± 0.4	17.3 ± 50	0.0 ± 0.0	22.0 ± 4.6	0.0 ± 0.0	418.1 ± 51.0	414.7 ± 10.6										
C-LAR	870713	8	411.9 ± 346	0.0 ± 0.0	26.4 ± 127	29 ± 16	82 ± 22	1.3 ± 0.6	0.0 ± 0.0	44.4 ± 17.1	17.4 ± 6.7	71.0 ± 29.2	585.5 ± 50.6	540.7 ± 18.9										
C-LAR	870713	11	324.7 ± 109	0.0 ± 0.0	24.1 ± 5.0	21 ± 0.7	52 ± 13	1.2 ± 0.4	81 ± 22	0.0 ± 0.0	15.6 ± 3.1	22.7 ± 9.2	20.5 ± 15.7	185.4 ± 6.5										
C-LAR	870713	15	172.8 ± 167	0.0 ± 0.0	27.9 ± 73	32 ± 0.9	111 ± 21	1.8 ± 0.5	0.0 ± 0.0	31.5 ± 8.5	24.0 ± 5.8	25.5 ± 12.2	299.7 ± 24.4	281.1 ± 9.1										
C-LAR	870714	4	148.2 ± 248	49.1 ± 152	18.9 ± 33	22 ± 0.8	54 ± 14	0.3 ± 0.3	16.3 ± 18	0.0 ± 0.0	16.7 ± 3.5	9.8 ± 9.7	266.9 ± 31.6	267.2 ± 7.6										
C-LAR	870714	6	204.5 ± 337	90.1 ± 219	12.8 ± 87	32 ± 11	102 ± 20	0.8 ± 0.4	10.4 ± 5.0	23.7 ± 14.9	13.2 ± 4.7	37.1 ± 17.0	396.1 ± 47.5	392.6 ± 13.6										
C-LAR	870714	8	237.7 ± 379	67.3 ± 225	30.3 ± 82	40 ± 12	74 ± 17	1.3 ± 0.5	14.1 ± 42	0.0 ± 0.0	23.0 ± 5.2	16.9 ± 15.3	405.9 ± 47.9	381.6 ± 11.3										
C-LAR	870714	11	168.1 ± 277	24.2 ± 97.0	53.0 ± 9.8	26 ± 0.9	94 ± 19	1.7 ± 0.5	10.3 ± 42	17.6 ± 11.4	11.4 ± 6.5	20.8 ± 11.0	34.8 ± 38.9	319.8 ± 10.1										
C-LAR	870714	15	191.6 ± 193	0.0 ± 0.0	59.9 ± 103	33 ± 2	12.8 ± 24	1.6 ± 0.5	0.0 ± 0.0	41.9 ± 10.0	57.7 ± 11.8	71.0 ± 21.3	440.5 ± 34.5	412.4 ± 15.3										
C-LAR	870714	15	236.9 ± 363	36.7 ± 206	45.8 ± 109	23 ± 10	14.3 ± 27	2.5 ± 0.7	0.0 ± 0.0	47.1 ± 11.9	37.3 ± 8.7	27.0 ± 16.3	450.0 ± 48.6	402.1 ± 12.7										
C-LAR	870715	4	181.8 ± 299	59.4 ± 182	26.7 ± 6.6	37 ± 11	63 ± 15	0.3 ± 0.3	11.0 ± 13	0.0 ± 0.0	17.2 ± 2.5	3.5 ± 10.6	117.0 ± 17.8	308.4 ± 8.0										
C-LAR	870715	6	160.8 ± 271	67.5 ± 170	25.1 ± 6.2	15 ± 0.8	74 ± 16	0.3 ± 0.3	10.0 ± 3.0	0.0 ± 0.0	18.0 ± 3.6	10.3 ± 11.1	30.0 ± 21.0	283.2 ± 8.4										
C-LAR	870715	8	159.5 ± 270	62.3 ± 168	29.4 ± 6.6	14 ± 0.8	71 ± 16	0.4 ± 0.3	9.5 ± 2.9	0.0 ± 0.0	19.6 ± 3.9	8.1 ± 10.6	291.8 ± 34.6	273.8 ± 8.2										
C-LAR	870715	10	162.4 ± 234	33.3 ± 147	16.6 ± 6.2	2.6 ± 0.8	7.5 ± 1.6	0.9 ± 0.3	4.2 ± 3.1	12.4 ± 9.8	14.6 ± 3.8	29.0 ± 11.8	263.4 ± 32.6	268.2 ± 8.6										
C-LAR	870715	12	164.0 ± 253	21.9 ± 105	20.2 ± 6.5	16 ± 0.8	9.9 ± 2.0	1.4 ± 0.4	0.0 ± 0.0	26.8 ± 8.1	16.1 ± 4.0	18.8 ± 11.3	281.5 ± 33.2	248.9 ± 8.0										
C-LAR	870715	15	191.5 ± 179	0.0 ± 0.0	28.4 ± 77	5.4 ± 12	9.6 ± 19	2.0 ± 0.5	0.0 ± 0.0	36.4 ± 9.1	14.3 ± 4.5	15.8 ± 11.7	30.0 ± 21.0	277.0 ± 8.4										
C-LAR	870827	6	181.1 ± 49.9	149.7 ± 328	19.3 ± 9.8	17 ± 1.4	6.9 ± 21	0.0 ± 0.0	0.0 ± 0.0	18.7 ± 3.6	0.0 ± 0.0	18.7 ± 3.6	577.6 ± 60.7	518.7 ± 14.4										
C-LAR	870827	8	310.1 ± 47.0	121.1 ± 283	32.5 ± 11.4	2.6 ± 1.3	8.6 ± 20	1.1 ± 0.5	0.0 ± 0.0	31.7 ± 14.2	14.1 ± 5.3	30.4 ± 30.4	512.3 ± 58.1	484.4 ± 13.5										
C-LAR	870827	11	276.2 ± 41.4	60.6 ± 233	21.7 ± 9.6	1.1 ± 1.0	10.4 ± 21	1.8 ± 0.5	0.0 ± 0.0	39.1 ± 12.7	11.7 ± 4.9	15.2 ± 15.2	575.5 ± 65.0	531.3 ± 24.6										
C-LAR	870827	12	289.0 ± 42.5	40.7 ± 242	19.2 ± 10.9	1.4 ± 1.1	14.1 ± 28	2.1 ± 0.6	0.0 ± 0.0	70.1 ± 14.4	14.6 ± 6.8	19.5 ± 50.2	640.2 ± 72.8	610.7 ± 29.1										
C-LAR	870827	15	201.6 ± 33.2	64.5 ± 197	23.1 ± 100	6.9 ± 0.9	10.5 ± 23	1.8 ± 0.5	0.0 ± 0.0	59.9 ± 11.7	9.6 ± 5.2	13.4 ± 35.4	507.5 ± 54.9	481.6 ± 21.5										
C-LAR	870828	4	376.4 ± 50.1	44.1 ± 276	0.0 ± 0.0	2.4 ± 1.3	11.3 ± 25	0.0 ± 0.0	0.0 ± 0.0	33.7 ± 13.5	15.0 ± 5.3	19.9 ± 16.0	521.1 ± 21.4	513.1 ± 14.4										
C-LAR	870828	6	301.6 ± 75.7	165.1 ± 43.7	31.8 ± 16.8	3.8 ± 1.9	11.9 ± 2.9	1.5 ± 0.7	0.0 ± 0.0	58.4 ± 22.6	23.9 ± 8.0	29.0 ± 40.4	502.1 ± 40.4	474.6 ± 21.9										
C-LAR	870828	8	240.2 ± 35.7	49.8 ± 21.8	32.6 ± 9.8	16 ± 0.9	10.2 ± 2.1	1.6 ± 0.5	52 ± 4.5	18.2 ± 14.4	14.9 ± 5.2	49.1 ± 19.6	411.3 ± 49.7	378.2 ± 13.4										
C-LAR	870828	11	227.1 ± 39.8	42.0 ± 23.0	34.8 ± 10.6	18 ± 1.1	10.6 ± 2.2	1.9 ± 0.6	0.0 ± 0.0	49.6 ± 12.7	21.9 ± 6.3	30.4 ± 43.6	450.6 ± 49.3	387.3 ± 11.6										
C-LAR	870828	15	196.5 ± 36.0	120.1 ± 22.5	101.9 ± 15.7	1.9 ± 1.2	14.8 ± 28	2.7 ± 0.7	0.0 ± 0.0	24.4 ± 11.9	10.9 ± 4.9	18.9 ± 20.4	521.1 ± 21.4	515.9 ± 19.7										
C-LAR	870828	15	277.2 ± 45.3	61.9 ± 280	96.2 ± 17.4	2.2 ± 1.2	18.6 ± 3.4	3.4 ± 0.9	8.9 ± 6.6	50.8 ± 19.3	4.5 ± 10.8	86.0 ± 28.8	611.7 ± 67.1	647.6 ± 21.9										
C-LAR	870829	4	361.4 ± 62.3	186.4 ± 42.1	90.0 ± 21.2	4.0 ± 1.8	16.8 ± 32	0.3 ± 0.3	18.0 ± 9.3	56.9 ± 28.7	36.2 ± 10.7	28.0 ± 42.6	501.9 ± 42.2											
C-LAR	870829	6	314.1 ± 51.9	123.1 ± 33.7	44.8 ± 15.9	3.2 ± 1.4	12.1 ± 2.5	1.1 ± 0.3	10.1 ± 8.0	70.1 ± 23.8	23.8 ± 8.6	16.12 ± 41.5	563.3 ± 62.0											
C-LAR	870829	8	301.4 ± 47.6	96.3 ± 28.9	32.0 ± 13.9	3.0 ± 1.3	10.5 ± 2.3	1.2 ± 0.5	0.0 ± 0.0	99.0 ± 18.0	16.0 ± 8.4	137.4 ± 39.5	597.4 ± 72.5											
C-LAR	870829	11	96.9 ± 15.3	133.0 ± 14.2	58.7 ± 9.1	0.0 ± 0.0	5.5 ± 1.8	0.0 ± 0.0	12.6 ± 1.8	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	532.3 ± 28.0	518.8 ± 12.1										
C-LAR	870902	15	219.4 ± 12.4	0.0 ± 0.0	20.2 ± 5.7	2.2 ± 0.7	12.8 ± 1.1	1.6 ± 1.4	3.6 ± 0.9	7.6 ± 4.9	42.9 ± 14.2	28.0 ± 9.2	517.1 ± 42.6	500.9 ± 19.2										
C-LAR	870902	15	111.7 ± 12.6	0.0 ± 0.0	31.7 ± 7.2	1.2 ± 0.7	4.0 ± 1.2	0.1 ± 0.3	12.6 ± 4.1	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	517.2 ± 42.6	500.9 ± 19.2										
C-LAR	870903	4	255.7 ± 23.6	0.0 ± 0.0	48.0 ± 11.3	3.0 ± 1.1	7.9 ± 1.8	0.0 ± 0.0	0.0 ± 0.0	57.0 ± 12.7	18.6 ± 6.3	44.6 ± 49.7	544.6 ± 59.7											
C-LAR	870903	6	319.6 ± 68.0	285.4 ± 46.8	0.0 ± 0.0	3.2 ± 2.0	12.6 ± 2.9	2.2 ± 0.7	0.0 ± 0.0	126.9 ± 22.6	10.1 ± 10.1	24.5 ± 68.5	1025.2 ± 415.1											
C-LAR	870903	12	130.7 ± 13.2	0.0 ± 0.0	23.4 ± 6.2	2.0 ± 0.7	7.1 ± 1.6	1.8 ± 0.5	5.9 ± 2.9	18.6 ± 8.6	8.6 ± 13.5	35.6 ± 31.9	24.1 ± 21.3	216.6 ± 8.2										
C-LAR	870903	15	123.3 ± 12.4	0.0 ± 0.0	20.2 ± 5.7	2.2 ± 0.7	12.8 ± 1.1	1.6 ± 1.3	1.6 ± 0.5	4.1 ± 2.6	20.9 ± 3.3	9.0 ± 12.2	214.7 ± 19.4	201.0 ± 7.1										
HAWT	870624	11	111.7 ± 16.7	219.4 ± 11.4																				

Table C.1
Individual Source Contribution Estimates to NMHC at SCAQS Sites

Site	Date	Time (EST)	Vehicle	Liquid		Gasoline		Architectural		Residential		Commercial		Industrial		Calculated			
				SCE ± 1σ (ppm)	SCE ± 1σ (ppm)	Vapor	SCE ± 1σ (ppm)	Mass	Mass										
HAWT	870114	15	2016 A 48	270 ± 6.0	189 ± 1.6	18 ± 0.6	31 ± 1.0	0.1 ± 0.02	0.0 ± 0.00	191 ± 3.7	185 ± 4.1	33 ± 1.1	85 ± 1.1	142 ± 1.1	141 ± 1.1	1504 ± 6.0			
HAWT	870115	6	1638 A 18.9	295 ± 12.6	476 ± 7.9	23 ± 0.8	41 ± 1.2	0.2 ± 0.03	0.7 ± 0.32	105 ± 5.7	270 ± 8.6	57 ± 5.7	154 ± 8.6	81 ± 25.0	81 ± 27.6	2461 ± 7.2			
HAWT	870115	11	671 A 152	343 ± 9.7	211 ± 5.6	16 ± 0.7	62 ± 1.3	0.1 ± 0.02	0.0 ± 0.00	412 ± 6.6	238 ± 5.7	210 ± 5.7	220 ± 5.7	81 ± 21.1	81 ± 21.1	2266 ± 7.2			
HAWT	870115	15	370 A 91	507 ± 1.8	226 ± 4.6	15 ± 0.6	19 ± 1.0	0.1 ± 0.02	0.9 ± 0.18	172 ± 6.3	154 ± 5.6	157 ± 5.4	1430 ± 15.9	159 ± 15.9	1512 ± 4.9				
HAWT	870115	15	1674 A 277	212 ± 16.0	179 ± 5.4	0.7 ± 0.7	76 ± 1.6	0.0 ± 0.03	4.9 ± 2.4	0.0 ± 0.00	194 ± 4.0	194 ± 4.0	2.2 ± 2.2	1640 ± 398	3952 ± 515	3927 ± 21.6			
HAWT	870121	6	1417 A 152	66 ± 0.4	66 ± 0.0	0.4 ± 0.5	50 ± 1.2	0.1 ± 0.02	1.5 ± 1.1	148 ± 3.3	39 ± 3.9	21 ± 2.1	14 ± 1.4	2.7 ± 3.5	81 ± 8.4	81 ± 6.8	781 ± 3.1		
HAWT	870822	11	547 A 67	60 ± 0	60 ± 0	0.4 ± 0.5	50 ± 1.2	0.1 ± 0.02	0.0 ± 0.00	141 ± 3.2	23 ± 2.3	13 ± 1.3	0.0 ± 0.0	0.0 ± 0.0	12 ± 9	100 ± 100	100 ± 100		
HAWT	870822	15	519 A 100	301 ± 7.2	60 ± 0	0.2 ± 0.6	71 ± 1.4	0.1 ± 0.02	0.1 ± 0.00	146 ± 3.6	129 ± 3.8	148 ± 3.8	240 ± 4.2	86 ± 27.5	2593 ± 7.2				
HAWT	870822	15	1685 A 190	214 ± 12.4	357 ± 7.2	13 ± 0.7	146 ± 2.6	61 ± 0.3	53 ± 3.1	256 ± 8.9	129 ± 8.9	3.0 ± 3.0	134 ± 16.3	63 ± 16.3	1289 ± 4.9				
HAWT	870828	4	1241 A 432	96 ± 0	96 ± 0	0.4 ± 0.5	50 ± 1.2	0.1 ± 0.02	0.0 ± 0.00	189 ± 4.3	35 ± 4.3	1.8 ± 1.8	102 ± 6.3	63 ± 6.3	134 ± 6.3	134 ± 6.3	134 ± 6.3		
HAWT	870828	15	617 A 115	142 ± 7.7	126 ± 3.5	0.5 ± 0.5	50 ± 1.2	0.1 ± 0.02	0.0 ± 0.00	138 ± 6.8	30.5 ± 6.8	318 ± 6.8	121 ± 12.1	232.8 ± 23.7	237 ± 23.7	314 ± 3.1			
HAWT	870829	6	1417 A 152	66 ± 0	71.9 ± 10.8	1.9 ± 0.8	107 ± 2.6	0.6 ± 0.08	109 ± 5.9	240 ± 5.9	99 ± 9.9	303 ± 6.8	68 ± 6.8	318 ± 6.8	314 ± 6.8	314 ± 6.8			
HAWT	870829	11	797 A 152	401 ± 12.2	181.5 ± 18.5	1.5 ± 0.9	62 ± 1.3	0.2 ± 0.03	0.0 ± 0.00	59.1 ± 17.9	33.4 ± 17.9	91 ± 9.1	359 ± 3.5	546.1 ± 44.6	557 ± 1.6	161 ± 16.1			
HAWT	870829	15	2817 A 279	66 ± 2	66 ± 0	133.5 ± 18.3	4.5 ± 1.4	261 ± 4.4	0.2 ± 0.00	87 ± 61	59.1 ± 17.9	13.4 ± 13.4	13.4 ± 13.4	50.9 ± 5.9	50.9 ± 5.9	311.8 ± 11.6			
HAWT	870902	6	1233 A 95	871 ± 9.5	60 ± 0	71.9 ± 10.8	107 ± 2.6	0.6 ± 0.08	0.0 ± 0.00	49 ± 2.8	20.4 ± 8.7	13.3 ± 13.3	3.7 ± 3.7	90.7 ± 31.1	90.7 ± 31.1	264.4 ± 10.6			
HAWT	870902	11	1241 A 432	96 ± 0	96 ± 0	0.4 ± 0.5	50 ± 1.2	0.1 ± 0.02	0.0 ± 0.00	138 ± 29	60 ± 29	5.6 ± 5.6	64.5 ± 64.5	16.7 ± 16.7	222.6 ± 22.3	222.6 ± 22.3			
HAWT	870902	15	1323 A 95	871 ± 9.5	60 ± 0	0.4 ± 0.5	50 ± 1.2	0.1 ± 0.02	0.0 ± 0.00	138 ± 29	60 ± 29	5.6 ± 5.6	64.5 ± 64.5	16.7 ± 16.7	222.6 ± 22.3	222.6 ± 22.3			
HAWT	870903	4	2151 A 357	538 ± 22.0	310 ± 10.5	2.4 ± 1.0	43 ± 1.4	0.6 ± 0.3	0.5 ± 0.5	85 ± 5.2	33.4 ± 14.7	50.1 ± 50.1	11.3 ± 11.3	87.7 ± 87.7	87.7 ± 87.7	201.4 ± 6.5			
HAWT	870903	7	4012 A 670	1133 ± 21.3	51.4 ± 18.1	4.1 ± 1.8	20 ± 1.0	0.0 ± 0.0	0.1 ± 0.00	81 ± 2.6	15.0 ± 6.6	21.2 ± 21.2	4.7 ± 4.7	207.3 ± 16.7	207.3 ± 16.7	207.3 ± 16.7			
HAWT	870903	15	4882 A 86	60 ± 0	64.9 ± 8.6	1.2 ± 0.6	20 ± 1.0	0.0 ± 0.0	0.0 ± 0.00	12.9 ± 4.9	30.0 ± 12.2	46.6 ± 46.6	5.3 ± 5.3	54.6 ± 54.6	54.6 ± 54.6	516.4 ± 16.6			
HAWT	871111	12	3376 A 485	864 ± 34.6	316 ± 31.4	11.4 ± 11.4	23 ± 1.3	1.7 ± 1.7	2.9 ± 2.9	0.0 ± 0.0	0.0 ± 0.0	44.9 ± 44.9	15.0 ± 15.0	22.7 ± 22.7	18.7 ± 18.7	2017.2 ± 54.9			
HAWT	871111	16	960 A 164	264 ± 3.7	65.7 ± 16.7	3.5 ± 3.5	51.1 ± 5.2	3.1 ± 3.1	0.1 ± 0.07	3.1 ± 3.1	60 ± 6.0	13.8 ± 13.8	16.2 ± 16.2	4.5 ± 4.5	57.0 ± 57.0	57.0 ± 57.0	333.6 ± 17.6		
HAWT	871112	7	14754 A 2224	4890 ± 1677	587 ± 587	9.4 ± 9.4	52 ± 52	3.1 ± 3.1	0.1 ± 0.07	3.1 ± 3.1	60 ± 6.0	13.8 ± 13.8	16.2 ± 16.2	4.5 ± 4.5	57.0 ± 57.0	57.0 ± 57.0	483.8 ± 483.8		
HAWT	871112	16	1380 A 239	559 ± 19.7	267 ± 7.3	1.8 ± 0.8	43 ± 1.0	4.3 ± 1.4	0.6 ± 0.3	0.5 ± 0.5	85 ± 52	33.4 ± 14.7	50.1 ± 50.1	11.3 ± 11.3	87.7 ± 87.7	87.7 ± 87.7	856.4 ± 24.2		
HAWT	871112	16	1235 A 1551	00 ± 0	270 ± 6.1	0.5 ± 0.5	85 ± 8.5	1.5 ± 1.5	0.2 ± 0.05	0.2 ± 0.05	17.8 ± 9.4	49.9 ± 26.1	99.0 ± 99.0	1.7 ± 1.7	48.7 ± 48.7	48.7 ± 48.7	382.8 ± 11.8		
HAWT	871113	7	1027 A 189	290 ± 17.9	348 ± 22.3	5.1 ± 5.1	10.5 ± 1.0	1.9 ± 0.8	0.7 ± 0.7	7.7 ± 1.7	0.2 ± 0.03	22.4 ± 6.2	29.7 ± 11.6	49.6 ± 49.6	4.3 ± 4.3	396.7 ± 43.6	396.7 ± 43.6	375.6 ± 12.1	
HAWT	871113	12	1595 A 282	486 ± 23.0	65.9 ± 23.0	2.5 ± 2.5	12.2 ± 1.0	0.9 ± 0.9	0.6 ± 0.6	0.6 ± 0.6	12.9 ± 4.9	30.0 ± 12.2	46.6 ± 46.6	3.7 ± 3.7	380.9 ± 45.1	380.9 ± 45.1	380.9 ± 45.1		
HAWT	871113	16	1027 A 189	66.3 ± 34.9	45.9 ± 12.4	2.3 ± 2.3	12.2 ± 1.2	0.6 ± 0.6	0.4 ± 0.4	0.4 ± 0.4	15.8 ± 6.8	34.3 ± 18.4	43.4 ± 43.4	2.5 ± 2.5	295.4 ± 98	295.4 ± 98	185.7 ± 6.9		
HAWT	871210	12	2819 A 457	64.3 ± 16.4	264 ± 3.7	4.5 ± 3.6	0.8 ± 0.6	4.0 ± 1.2	0.2 ± 0.02	51 ± 2.4	9.4 ± 7.4	7.9 ± 7.9	2.5 ± 2.5	109.7 ± 109.7	109.7 ± 109.7	201.0 ± 146.1			
HAWT	871210	7	1283 A 1019	00 ± 0	270 ± 6.1	64.1 ± 6.1	10.9 ± 6.7	3.9 ± 10.1	3.2 ± 2.4	40.5 ± 25.6	80 ± 80	16.7 ± 16.7	16.2 ± 16.2	4.5 ± 4.5	107.4 ± 107.4	107.4 ± 107.4	1049.0 ± 28.5		
HAWT	871203	12	4082 A 631	540 ± 46.6	650 ± 16.6	16.6 ± 16.6	7.6 ± 6.5	17.1 ± 15.5	0.2 ± 0.05	24.2 ± 9.2	34.4 ± 23.4	34.4 ± 34.4	2.5 ± 2.5	48.7 ± 48.7	48.7 ± 48.7	647.6 ± 20.4			
HAWT	871203	16	1827 A 325	51.5 ± 26.1	79.4 ± 14.2	1.9 ± 0.9	29 ± 1.2	0.3 ± 0.03	0.1 ± 0.03	22.4 ± 6.2	29.7 ± 11.6	49.6 ± 49.6	10.3 ± 10.3	31.7 ± 31.7	31.7 ± 31.7	380.9 ± 12.1			
HAWT	871203	16	1605 A 279	348 ± 22.3	51.3 ± 10.5	1.9 ± 0.8	2.7 ± 1.0	0.3 ± 0.03	0.2 ± 0.03	22.4 ± 6.2	29.7 ± 11.6	49.6 ± 49.6	6.6 ± 6.6	47.9 ± 47.9	47.9 ± 47.9	5010.5 ± 16.5			
HAWT	871203	16	1027 A 189	290 ± 17.9	381 ± 2.3	7.2 ± 7.2	1.5 ± 1.2	0.7 ± 0.7	0.5 ± 0.5	0.5 ± 0.5	18.4 ± 6.8	34.3 ± 18.4	43.4 ± 43.4	2.5 ± 2.5	295.4 ± 98	295.4 ± 98	185.7 ± 6.9		
HAWT	871210	12	2819 A 457	64.3 ± 16.4	264 ± 3.7	4.5 ± 3.6	0.8 ± 0.6	4.0 ± 1.2	0.2 ± 0.02	51 ± 2.4	9.4 ± 7.4	7.9 ± 7.9	2.5 ± 2.5	109.7 ± 109.7	109.7 ± 109.7	201.0 ± 146.1			
HAWT	871210	7	1283 A 1019	00 ± 0	270 ± 6.1	64.1 ± 6.1	10.9 ± 6.7	3.9 ± 10.1	3.2 ± 2.4	40.5 ± 25.6	80 ± 80	16.7 ± 16.7	16.2 ± 16.2	4.5 ± 4.5	107.4 ± 107.4	107.4 ± 107.4	1049.0 ± 28.5		
HAWT	871210	12	4082 A 631	540 ± 46.6	650 ± 16.6	16.6 ± 16.6	7.6 ± 6.5	17.1 ± 15.5	0.2 ± 0.05	24.2 ± 9.2	34.4 ± 23.4	34.4 ± 34.4	2.5 ± 2.5	48.7 ± 48.7	48.7 ± 48.7	647.6 ± 20.4			
HAWT	871210	16	1827 A 325	51.5 ± 26.1	79.4 ± 14.2	1.9 ± 0.9	29 ± 1.2	0.3 ± 0.03	0.1 ± 0.03	22.4 ± 6.2	29.7 ± 11.6	49.6 ± 49.6	10.3 ± 10.3	31.7 ± 31.7	31.7 ± 31.7	380.9 ± 12.1			
HAWT	871210	16	1605 A 279	348 ± 22.3	51.3 ± 10.5	1.9 ± 0.8	2.7 ± 1.0	0.3 ± 0.03	0.2 ± 0.03	22.4 ± 6.2	29.7 ± 11.6	49.6 ± 49.6	6.6 ± 6.6	47.9 ± 47.9	47.9 ± 47.9	5010.5 ± 16.5			
I.B/C	870623	11	424 A 53	00 ± 0	16.7 ± 16.7	1.8 ± 1.8	0.9 ± 0.9	0.7 ± 0.7	0.5 ± 0.5	0.5 ± 0.5	20.4 ± 20.4	41.9 ± 41.9	41.9 ± 41.9	2.5 ± 2.5	45.7 ± 45.7	45.7 ± 45.7	456.1 ± 17.9		
I.B/C	870624	11	1254 A 204	330 ± 19.9	62.1 ± 12.1	1.6 ± 1.6	0.9 ± 0.9	0.7 ± 0.7	0.5 ± 0.5	0.5 ± 0.5	20.4 ± 20.4	41.9 ± 41.9	41.9 ± 41.9	2.5 ± 2.5	45.7 ± 45.7	45.7 ± 45.7	456.1 ± 17.9		
I.B/C	870624	11	816 A 100	58.7 ± 58.7	00 ± 0	0.9 ± 0.9	0.7 ± 0.7	0.5 ± 0.5	0.3 ± 0.3	0.3 ± 0.3	12.4 ± 12.4	41.9 ± 41.9	41.9 ± 41.9	2.5 ± 2.5	45.7 ± 45.7	45.7 ± 45.7	456.1 ± 17.9		
I.B/C	870624	11	280 ± 26.0	00 ± 0	0.9 ± 0.9	0.7 ± 0.7	0.5 ± 0.5	0.3 ± 0.3	0.3 ± 0.3	12.4 ± 12.4	41.9 ± 41.9	41.9 ± 41.9	2.5 ± 2.5	45.7 ± 45.7	45.7 ± 45.7	456.1 ± 17.9			
I.B/C	870624	11	211 A 21.6	00 ± 0	0.9 ± 0.9	0.7 ± 0.7	0.5 ± 0.5	0.3 ± 0.3	0.3 ± 0.3	12.4 ± 12.4	41.9 ± 41.9	41.9 ± 41.9	2.5 ± 2.5	45.7 ± 45.7	45.7 ± 45.7	456.1 ± 17.9			
I.B/C	870624	11	151 A 24.7	33.5 ± 16.7	114.3 ± 14.8	3.5 ± 3.5	0.5 ± 0.6	0.3 ± 0.3	0.2 ± 0.2	0.0 ± 0.0	21.2 ± 21.2	41.9 ± 41.9	41.9 ± 41.9	2.5 ± 2.5	45.7 ± 45.7	45.7 ± 45.7	456.1 ± 17.9		
I.B/C	870624	11	151 A 24.																

Table C-1
Individual Source Contribution Estimates to NMHC at SCAQS Sites

Site #	Date	Time (ET) (min)	Vehicle Exhaust SCE ± 1σ (kg/m³)	Liquid Gasoline SCE ± 1σ (kg/m³)	Gasoline Vapor SCE ± 1σ (kg/m³)	Architectural Coatings SCE ± 1σ (kg/m³)	Drinking Water SCE ± 1σ (kg/m³)	Biogenic SCE ± 1σ (kg/m³)	Commercial Natural Gas SCE ± 1σ (kg/m³)			Geographic Natural Gas SCE ± 1σ (kg/m³)			Industrialized Petroleum Gas SCE ± 1σ (kg/m³)				
									Calculated Mass (kg/m³)	Unadjusted SCE ± 1σ (kg/m³)	Liquified Petroleum Gas SCE ± 1σ (kg/m³)	Calculated Mass (kg/m³)	Unadjusted SCE ± 1σ (kg/m³)	Liquified Petroleum Gas SCE ± 1σ (kg/m³)	Calculated Mass (kg/m³)	Unadjusted SCE ± 1σ (kg/m³)	Liquified Petroleum Gas SCE ± 1σ (kg/m³)		
I.B/C	870714	11	1254 ± 233	462 ± 163	1025 ± 141	55 ± 13	95 ± 20	01 ± 03	237 ± 63	392 ± 120	590 ± 125	429 ± 146	452 ± 146	396 ± 138	434 ± 144	434 ± 144	434 ± 144		
I.B/C	870714	15	1569 ± 132	60 ± 60	222 ± 56	14 ± 07	69 ± 16	04 ± 03	97 ± 27	90 ± 06	221 ± 43	136 ± 91	233 ± 88	180 ± 91	223 ± 69	180 ± 91	223 ± 69		
I.B/C	870715	4	395 ± 86	69 ± 63	27 ± 13	09 ± 05	58 ± 13	00 ± 02	38 ± 16	85 ± 49	50 ± 17	381 ± 96	116 ± 157	113 ± 157	113 ± 157	113 ± 157	113 ± 157		
I.B/C	870715	13	684 ± 113	148 ± 72	02 ± 23	18 ± 06	145 ± 27	68 ± 13	00 ± 00	63 ± 34	39 ± 14	92 ± 51	117 ± 155	104 ± 155	104 ± 155	104 ± 155	104 ± 155		
I.B/C	870715	15	529 ± 104	198 ± 81	264 ± 45	02 ± 05	60 ± 14	00 ± 02	40 ± 22	209 ± 64	76 ± 26	477 ± 123	179 ± 200	187 ± 200	187 ± 200	187 ± 200	187 ± 200		
I.B/C	870715	17	1729 ± 278	253 ± 172	234 ± 76	16 ± 08	71 ± 16	02 ± 03	194 ± 55	214 ± 113	137 ± 43	90 ± 00	285 ± 161	361 ± 213	231 ± 94	231 ± 94	231 ± 94	231 ± 94	
I.B/C	870827	4	1729 ± 412	715 ± 268	209 ± 74	15 ± 10	77 ± 18	06 ± 04	102 ± 39	00 ± 00	155 ± 33	00 ± 00	391 ± 490	349 ± 490	373 ± 94	373 ± 94	373 ± 94	373 ± 94	
I.B/C	870827	6	2635 ± 408	790 ± 203	06 ± 00	23 ± 10	134 ± 26	05 ± 03	09 ± 00	667 ± 106	63 ± 63	484 ± 188	625 ± 444	462 ± 444	462 ± 444	462 ± 444	462 ± 444		
I.B/C	870827	8	2021 ± 324	690 ± 176	402 ± 90	01 ± 08	77 ± 16	03 ± 03	56 ± 37	189 ± 121	236 ± 59	350 ± 235	395 ± 416	416 ± 416	395 ± 416	395 ± 416	395 ± 416		
I.B/C	870827	10	1430 ± 246	690 ± 176	402 ± 90	01 ± 08	61 ± 15	05 ± 03	00 ± 00	201 ± 84	173 ± 45	180 ± 109	328 ± 343	343 ± 317	317 ± 94	317 ± 94	317 ± 94	317 ± 94	
I.B/C	870827	12	1724 ± 273	466 ± 159	495 ± 91	01 ± 08	61 ± 15	05 ± 03	00 ± 00	197 ± 72	180 ± 72	261 ± 115	259 ± 261	261 ± 261	261 ± 261	261 ± 261	261 ± 261		
I.B/C	870827	15	1499 ± 413	815 ± 267	879 ± 161	49 ± 15	158 ± 30	04 ± 04	274 ± 87	620 ± 186	364 ± 100	349 ± 192	588 ± 590	590 ± 575	575 ± 165	575 ± 165	575 ± 165	575 ± 165	
I.B/C	870828	4	2351 ± 408	790 ± 203	06 ± 00	23 ± 10	134 ± 26	05 ± 03	09 ± 00	480 ± 130	318 ± 292	916 ± 220	397 ± 251	1018 ± 1018	976 ± 1018	1018 ± 1018	1018 ± 1018	1018 ± 1018	
I.B/C	870828	6	2082 ± 539	1536 ± 408	3718 ± 415	78 ± 25	192 ± 38	06 ± 06	480 ± 06	480 ± 130	318 ± 292	916 ± 220	397 ± 251	1018 ± 1018	976 ± 1018	1018 ± 1018	1018 ± 1018	1018 ± 1018	
I.B/C	870828	11	2041 ± 366	814 ± 253	1637 ± 223	58 ± 16	114 ± 26	03 ± 04	288 ± 92	733 ± 191	736 ± 168	460 ± 193	488 ± 60	60 ± 60	656 ± 193	656 ± 193	656 ± 193	656 ± 193	
I.B/C	870828	13	1764 ± 139	60 ± 60	523 ± 94	77 ± 15	45 ± 12	03 ± 03	65 ± 38	442 ± 106	233 ± 64	766 ± 200	3416 ± 290	290 ± 349	349 ± 138	349 ± 138	349 ± 138	349 ± 138	
I.B/C	870828	15	1699 ± 232	246 ± 134	173 ± 57	13 ± 07	76 ± 16	05 ± 03	00 ± 00	197 ± 72	181 ± 72	261 ± 115	259 ± 261	261 ± 261	261 ± 261	261 ± 261	261 ± 261		
I.B/C	870829	4	1641 ± 199	289 ± 131	292 ± 67	15 ± 07	71 ± 15	01 ± 03	97 ± 36	217 ± 91	173 ± 44	91 ± 71	229 ± 279	279 ± 220	220 ± 1	220 ± 1	220 ± 1	220 ± 1	
I.B/C	870829	6	926 ± 167	286 ± 115	183 ± 56	22 ± 07	110 ± 21	02 ± 02	61 ± 31	290 ± 54	132 ± 54	132 ± 54	310 ± 310	310 ± 289	289 ± 249	249 ± 249	249 ± 249	249 ± 249	
I.B/C	870829	8	718 ± 132	207 ± 94	118 ± 41	19 ± 06	94 ± 18	01 ± 02	39 ± 22	149 ± 66	81 ± 25	00 ± 00	00 ± 00	00 ± 00	00 ± 00	00 ± 00	00 ± 00	00 ± 00	
I.B/C	870829	10	813 ± 150	172 ± 103	457 ± 70	10 ± 06	83 ± 16	02 ± 02	81 ± 28	89 ± 73	251 ± 53	251 ± 294	319 ± 366	366 ± 366	366 ± 161	366 ± 161	366 ± 161	366 ± 161	
I.B/C	870829	12	762 ± 93	00 ± 00	602 ± 81	10 ± 06	35 ± 11	00 ± 02	78 ± 26	144 ± 67	305 ± 63	305 ± 63	408 ± 408	408 ± 518	408 ± 244	408 ± 244	408 ± 244	408 ± 244	
I.B/C	870829	15	1007 ± 175	115 ± 56	364 ± 67	15 ± 07	52 ± 13	03 ± 03	58 ± 28	165 ± 80	233 ± 51	233 ± 51	310 ± 310	310 ± 289	289 ± 249	249 ± 249	249 ± 249	249 ± 249	
I.B/C	870902	4	2728 ± 476	633 ± 299	1567 ± 236	54 ± 16	168 ± 38	04 ± 04	516 ± 102	675 ± 208	674 ± 160	598 ± 243	761 ± 760	760 ± 760	756 ± 222	756 ± 222	756 ± 222	756 ± 222	
I.B/C	870902	6	3271 ± 899	2814 ± 409	3728 ± 481	102 ± 34	281 ± 54	11 ± 08	671 ± 118	00 ± 00	00 ± 00	00 ± 00	00 ± 00	00 ± 00	1287 ± 1195	1195 ± 1269	1269 ± 343	1269 ± 343	
I.B/C	870902	8	6873 ± 1159	2646 ± 757	1624 ± 367	100 ± 34	426 ± 84	14 ± 09	370 ± 183	190 ± 505	1066 ± 265	1066 ± 265	1511 ± 623	1511 ± 1575	1575 ± 483	483 ± 483	483 ± 483	483 ± 483	
I.B/C	870902	10	2511 ± 498	3785 ± 430	00 ± 00	90 ± 27	198 ± 40	06 ± 06	790 ± 161	00 ± 00	1796 ± 361	350 ± 314	911 ± 71	911 ± 822	822 ± 1023	1023 ± 309	1023 ± 309	1023 ± 309	
I.B/C	870902	12	1867 ± 179	00 ± 00	639 ± 115	16 ± 08	236 ± 38	10 ± 04	360 ± 43	360 ± 120	674 ± 67	674 ± 67	348 ± 348	348 ± 366	366 ± 87	366 ± 87	366 ± 87	366 ± 87	
I.B/C	870902	15	1650 ± 146	00 ± 00	65 ± 47	11 ± 07	99 ± 20	03 ± 03	00 ± 00	83 ± 63	03 ± 03	03 ± 03	00 ± 00	00 ± 00	00 ± 00	1261 ± 1111	1111 ± 1269	1269 ± 343	1269 ± 343
I.B/C	870902	17	1751 ± 285	581 ± 211	419 ± 91	27 ± 10	81 ± 18	05 ± 03	00 ± 02	26 ± 15	108 ± 87	76 ± 87	76 ± 87	1020 ± 1020	1020 ± 1020	1020 ± 1020	1020 ± 1020	1020 ± 1020	
I.B/C	870903	4	482 ± 62	00 ± 00	88 ± 30	01 ± 05	25 ± 10	00 ± 02	65 ± 18	49 ± 37	37 ± 18	37 ± 18	1020 ± 1020	1020 ± 1020	1020 ± 1020	1020 ± 1020	1020 ± 1020	1020 ± 1020	
I.B/C	870903	6	1207 ± 199	249 ± 125	296 ± 55	13 ± 07	53 ± 13	03 ± 03	36 ± 20	00 ± 00	159 ± 31	31 ± 31	90 ± 90	90 ± 90	2035 ± 2035	2035 ± 1863	1863 ± 56	56 ± 56	56 ± 56
I.B/C	870903	8	1239 ± 202	376 ± 160	104 ± 37	08 ± 06	30 ± 17	04 ± 04	00 ± 00	1046 ± 169	207 ± 207	207 ± 207	210 ± 210	210 ± 210	210 ± 210	210 ± 210	210 ± 210	210 ± 210	
I.B/C	870903	12	2519 ± 494	1198 ± 351	650 ± 161	40 ± 14	189 ± 35	04 ± 04	00 ± 02	41 ± 15	63 ± 15	63 ± 15	97 ± 97	97 ± 97	222 ± 222	222 ± 222	222 ± 222	222 ± 222	
I.B/C	870903	15	4838 ± 720	704 ± 512	00 ± 00	43 ± 18	153 ± 33	06 ± 06	00 ± 06	00 ± 00	790 ± 93	93 ± 93	96 ± 96	96 ± 96	222 ± 222	222 ± 222	222 ± 222	222 ± 222	
I.B/C	870903	17	6165 ± 977	1018 ± 727	1014 ± 50	47 ± 40	13 ± 08	68 ± 16	03 ± 03	77 ± 29	00 ± 00	00 ± 00	00 ± 00	00 ± 00	36 ± 40	40 ± 9	40 ± 9	40 ± 9	
I.B/C	871013	9	1901 ± 295	486 ± 225	486 ± 47	21 ± 11	419 ± 91	27 ± 10	81 ± 18	05 ± 03	255 ± 87	76 ± 87	76 ± 87	343 ± 343	343 ± 102	102 ± 102	102 ± 102	102 ± 102	102 ± 102
I.B/C	871013	12	1169 ± 152	169 ± 124	48 ± 12	13 ± 06	49 ± 12	01 ± 02	65 ± 18	00 ± 00	187 ± 27	27 ± 27	187 ± 27	187 ± 187	187 ± 187	187 ± 187	187 ± 187	187 ± 187	187 ± 187
I.B/C	871013	14	907 ± 152	1992 ± 2056	1699 ± 478	128 ± 52	465 ± 92	28 ± 16	00 ± 00	187 ± 27	27 ± 27	187 ± 27	187 ± 27	208 ± 208	208 ± 208	208 ± 208	208 ± 208	208 ± 208	208 ± 208
I.B/C	871013	16	1239 ± 202	2519 ± 494	1198 ± 351	650 ± 161	40 ± 14	189 ± 35	04 ± 04	00 ± 00	1046 ± 169	207 ± 207	207 ± 207	210 ± 210	210 ± 210	210 ± 210	210 ± 210	210 ± 210	210 ± 210
I.B/C	871013	17	2235 ± 343	560 ± 343	2396 ± 210	00 ± 00	43 ± 18	153 ± 33	06 ± 06	00 ± 06	00 ± 00	00 ± 00	00 ± 00	00 ± 00	36 ± 40	40 ± 9	40 ± 9	40 ± 9	
I.B/C	871013	19	9715 ± 1195	1116 ± 976	1165 ± 50	329 ± 31	201 ± 50	120 ± 10	00 ± 00	00 ± 00	1073 ± 608	313 ± 313	313 ± 313	313 ± 313	313 ± 313	313 ± 313	313 ± 313	313 ± 313	313 ± 313
I.B/C	871013	20	4882 ± 712	554 ± 511	1348 ± 240	23 ± 16	554 ± 104	37 ± 37	08 ± 06	30 ± 17	52 ± 19	00 ± 00	00 ± 00	00 ± 00	36 ± 44	40 ± 9	40 ± 9	40 ± 9	40 ± 9
I.B/C	871211	12	4211 ± 679	555 ± 523	1779 ± 178	00 ± 00	43 ± 18	153 ± 33	06 ± 06	00 ± 06	00 ± 00	00 ± 00	00 ± 00	00 ± 00	36 ± 44	40 ± 9	40 ± 9	40 ± 9	40 ± 9

Table C-1
Individual Source Contribution Estimates to NMHC and SCAQS Sites

Row#	Date	Time (ET)	Vehicle Emission (ug/m ³)	Liquid Gasoline (ug/m ³)	Gasoline Vapors (ug/m ³)	SCE ± 1σ (ug/m ³)	Architectural Coatings			Biogenic			Geogenic			Consumer Household Goods			Petroleum/Gasoline			Unadjusted SCE ± 1σ (ug/m ³)			Calculated Mean SCE ± 1σ (ug/m ³)				
							SCE ± 1σ (ug/m ³)	SCE ± 1σ (ug/m ³)	SCE ± 1σ (ug/m ³)	SCE ± 1σ (ug/m ³)	SCE ± 1σ (ug/m ³)	SCE ± 1σ (ug/m ³)																	
RIVR	870624	11	177.2 ± 16.9	66 ± 2	0.0	357 ± 81	1.4 ± 0.8	47 ± 13	0.2 ± 0.3	5.6 ± 3.4	187 ± 104	16.4 ± 4.4	210 ± 117	202.4 ± 25.1	271.3 ± 87														
RIVR	870624	15	119.4 ± 11.9	69 ± 4	0.0	166 ± 51	0.9 ± 0.6	40 ± 12	0.4 ± 0.3	3.2 ± 2.3	97 ± 78	10.4 ± 7.9	14.0 ± 2.9	179.6 ± 17.5	151.5 ± 5.6														
RIVR	870624	15	94.3 ± 47.7	28.8 ± 94.3	12.9 ± 70.9	47 ± 15	50 ± 16	0.5 ± 0.4	152 ± 48	8.0 ± 8.0	30 ± 31.5	6.3 ± 6.3	31.6 ± 22.9	55.6 ± 62.2	59.5 ± 17.0														
RIVR	870715	6	129.0 ± 47.7	66 ± 4	0.0	390 ± 61	1.5 ± 0.7	26 ± 11	0.3 ± 0.3	7.6 ± 2.1	6.6 ± 8.0	14.5 ± 2.9	29 ± 17.6	18.7 ± 18.7	256.1 ± 22.7	231.0 ± 10.9													
RIVR	870715	11	115.1 ± 10.6	66 ± 4	0.0	350 ± 68	1.5 ± 0.8	50 ± 13	0.2 ± 0.3	11.0 ± 3.6	6.6 ± 6.6	30.3 ± 5.9	14.2 ± 8.9	261.4 ± 19.8	232.5 ± 7.3														
RIVR	870715	15	139.6 ± 12.4	66 ± 4	0.0	350 ± 64	1.2 ± 0.8	54 ± 12	0.3 ± 0.3	16.4 ± 4.1	6.6 ± 6.6	30.2 ± 6.0	16.0 ± 6.0	31.7 ± 37.9	341.1 ± 9.4														
RIVR	870715	4	184.7 ± 36.4	64.4 ± 19.3	44.5 ± 83	24 ± 10	67 ± 16	0.3 ± 0.3	16.4 ± 4.1	6.6 ± 6.6	19.3 ± 19.3	6.4 ± 19.3	31 ± 31	19.0 ± 9.0	213.9 ± 18.2	190.7 ± 6.6													
RIVR	870714	11	129.7 ± 12.7	66 ± 4	0.0	295 ± 60	1.1 ± 0.6	16 ± 13	0.3 ± 0.3	16.4 ± 4.1	6.6 ± 6.6	30.3 ± 6.0	16.0 ± 6.0	31.4 ± 31.4	210.2 ± 28.6	222.4 ± 7.6													
RIVR	870714	4	116.4 ± 19.9	39.7 ± 6.6	13.2 ± 13.2	5.7 ± 5.7	12 ± 6	0.7 ± 0.3	6.2 ± 1.2	0.3 ± 0.3	3.2 ± 2.8	17.2 ± 9.1	19.2 ± 3.2	24.4 ± 18.4	210.2 ± 26.6	227.1 ± 10.2													
RIVR	870715	11	166.1 ± 15.8	66 ± 4	0.0	189 ± 62	3.2 ± 6.9	4.5 ± 1.5	0.2 ± 0.3	6.6 ± 6.6	27.6 ± 8.0	12.9 ± 3.9	48.7 ± 13.6	13.6 ± 13.6	286.4 ± 26.8	272.1 ± 10.2													
RIVR	870715	15	115.1 ± 11.1	66 ± 4	0.0	72 ± 40	0.9 ± 6.6	6.9 ± 13	0.1 ± 0.3	6.6 ± 6.6	15.6 ± 15.6	3.6 ± 7.4	24 ± 24	18.8 ± 7.3	164.7 ± 15.2	163.7 ± 5.2													
RIVR	870715	15	115.1 ± 11.1	66 ± 4	0.0	277 ± 74	1.4 ± 6.8	9.7 ± 1.9	0.1 ± 0.3	6.6 ± 6.6	34.3 ± 34.3	8.5 ± 16.4	4.7 ± 4.7	0.0 ± 0.0	277.0 ± 31.2	234.0 ± 7.7													
RIVR	870827	15	164.0 ± 24.6	22.0 ± 14.1	0.0 ± 0.0	111 ± 30	1.6 ± 6.7	13.7 ± 7.5	0.0 ± 0.0	35.4 ± 4.5	7.2 ± 9.9	19.3 ± 19.3	0.0 ± 0.0	91.4 ± 101.8	79.5 ± 22.3														
RIVR	870828	6	56.7 ± 5.6	119.2 ± 56.1	60.5 ± 67.1	11.1 ± 19	11.1 ± 3.0	10 ± 1.7	0.7 ± 0.7	10.5 ± 4.3	9.9 ± 9.9	15.1 ± 4.5	1.9 ± 1.9	378.1 ± 41.7	316.5 ± 10.5														
RIVR	870828	11	212.6 ± 32.4	35.9 ± 18.3	62.2 ± 18.9	13 ± 6.9	7.8 ± 1.7	7.8 ± 1.7	0.6 ± 0.3	6.6 ± 6.6	23.9 ± 9.9	9.9 ± 9.9	15.1 ± 4.5	1.9 ± 1.9	378.1 ± 41.7	316.5 ± 10.5													
RIVR	870828	15	239.7 ± 38.0	34.5 ± 23.1	107.5 ± 16.3	26 ± 11	11.0 ± 2.2	6.6 ± 2.2	0.6 ± 0.4	10.0 ± 6.3	29.6 ± 15.1	9.1 ± 9.1	77.7 ± 26.6	5.6 ± 5.6	318.2 ± 17.8	279.0 ± 17.0													
RIVR	870829	6	310.3 ± 52.0	31.1 ± 31.7	45.6 ± 45.6	11.4 ± 11.4	18 ± 13	7.5 ± 1.9	0.4 ± 0.4	11.3 ± 4.9	9.0 ± 9.0	31.3 ± 6.2	9.2 ± 9.2	270.0 ± 31.2	234.0 ± 7.7														
RIVR	870829	15	79.0 ± 8.7	66 ± 6.6	0.0 ± 0.0	11.0 ± 3.8	0.5 ± 0.5	1.1 ± 1.1	0.4 ± 0.4	6.1 ± 6.1	29 ± 1.8	10.5 ± 6.1	7.2 ± 7.2	13.2 ± 6.5	133.2 ± 13.4	119.0 ± 4.8													
RIVR	870902	6	80.1 ± 52.0	66 ± 6.6	0.0 ± 0.0	99.9 ± 23.4	2.3 ± 2.6	13.0 ± 3.7	1.6 ± 0.9	6.0 ± 6.0	6.0 ± 6.0	36.7 ± 7.1	7.1 ± 7.1	98.5 ± 58.3	94.6 ± 22.1														
RIVR	870903	6	482.7 ± 68.6	64.6 ± 40.6	46.6 ± 16.0	4.5 ± 18	11.0 ± 2.4	6.8 ± 2.4	0.6 ± 0.4	6.6 ± 6.6	64.7 ± 29.4	17.2 ± 17.2	7.9 ± 7.9	0.0 ± 0.0	687.7 ± 93.6	680.9 ± 17.0													
RIVR	870903	11	134.0 ± 11.5	66 ± 6.6	0.0 ± 0.0	56.1 ± 17.1	1.1 ± 0.7	12.7 ± 2.3	0.4 ± 0.3	13.3 ± 4.9	9.0 ± 9.0	31.3 ± 6.2	9.2 ± 9.2	218.5 ± 14.4	179.7 ± 5.2														
RIVR	870903	15	101.1 ± 9.1	66 ± 6.6	0.0 ± 0.0	125 ± 35	1.1 ± 0.6	5.8 ± 4.1	0.4 ± 0.3	5.1 ± 1.6	6.0 ± 6.0	33.4 ± 8.3	7.2 ± 7.2	140.5 ± 13.4	160.5 ± 7.4														
RIVR	871111	7	399.5 ± 51.6	130.0 ± 38.8	0.0 ± 0.0	47 ± 17	10.5 ± 2.4	6.8 ± 2.4	0.6 ± 0.6	6.6 ± 6.6	6.0 ± 6.0	23.6 ± 4.4	7.2 ± 7.2	227.5 ± 42.7	224.6 ± 10.5														
RIVR	871111	12	63.5 ± 9.8	24.0 ± 8.4	0.0 ± 0.0	96 ± 9.5	3.2 ± 1.0	6.2 ± 0.2	0.6 ± 0.6	6.6 ± 6.6	64.7 ± 29.4	17.2 ± 17.2	7.9 ± 7.9	0.0 ± 0.0	132.3 ± 16.2	132.3 ± 6.2													
RIVR	871111	16	139.4 ± 21.5	64.9 ± 44.6	40.7 ± 56.1	4.3 ± 9.7	10.2 ± 3.7	15.5 ± 3.7	1.5 ± 0.8	0.0 ± 0.0	39.4 ± 1.8	0.0 ± 0.0	35.1 ± 6.6	6.6 ± 6.6	97.0 ± 100.1	96.4 ± 25.9													
RIVR	871112	7	616.2 ± 86.1	11.5 ± 6.6	0.0 ± 0.0	115 ± 32	0.5 ± 0.6	2.7 ± 1.0	0.3 ± 0.3	0.4 ± 0.4	0.0 ± 0.0	4.7 ± 4.7	0.0 ± 0.0	4.7 ± 4.7	142.6 ± 4.5	142.6 ± 4.5													
RIVR	871112	12	100.4 ± 13.7	16.3 ± 11.5	0.0 ± 0.0	115 ± 35	1.1 ± 0.6	5.8 ± 4.1	0.4 ± 0.3	5.1 ± 1.6	6.0 ± 6.0	33.4 ± 8.3	7.2 ± 7.2	142.6 ± 4.5	142.6 ± 4.5														
RIVR	871112	16	197.4 ± 36.8	70.2 ± 22.6	21.2 ± 22.6	7.2 ± 7.2	1.3 ± 0.9	8.9 ± 4.9	1.9 ± 1.9	6.4 ± 6.4	6.0 ± 6.0	22.5 ± 9.4	7.1 ± 7.1	177.7 ± 42.7	177.7 ± 42.7														
RIVR	871113	7	779.7 ± 98.0	113.7 ± 74.6	61.3 ± 19.6	4.0 ± 2.7	16.7 ± 4.6	1.6 ± 1.6	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	37.6 ± 16.3	8.1 ± 8.1	10.9 ± 10.9	0.0 ± 0.0	103.0 ± 12.0	103.0 ± 12.0												
RIVR	871113	12	150.3 ± 21.1	48.2 ± 18.1	47.9 ± 16.1	4.3 ± 9.7	10.2 ± 3.5	10.2 ± 3.5	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	6.6 ± 6.6	6.6 ± 6.6	6.6 ± 6.6	0.0 ± 0.0	215.0 ± 20.1	190.0 ± 6.2												
RIVR	871210	12	990.8 ± 73.1	60.4 ± 60	244.8 ± 41.4	8.0 ± 3.3	18.6 ± 4.7	1.5 ± 1.1	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	16.5 ± 16.5	0.0 ± 0.0	16.5 ± 16.5	0.0 ± 0.0	1426.1 ± 158.7	1318.3 ± 35.9												
RIVR	871211	7	83.0 ± 14.6	14.6 ± 11.9	24.1 ± 4.6	0.8 ± 0.6	2.4 ± 1.0	0.2 ± 0.2	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	32 ± 13	1.5 ± 1.5	6.0 ± 6.0	0.0 ± 0.0	135.0 ± 19.5	129.8 ± 4.1												
RIVR	871211	12	87.0 ± 14.6	14.6 ± 11.9	24.1 ± 4.6	0.8 ± 0.6	2.4 ± 1.0	0.2 ± 0.2	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	32 ± 13	1.5 ± 1.5	6.0 ± 6.0	0.0 ± 0.0	135.0 ± 19.5	129.8 ± 4.1												
RIVR	871211	16	63.2 ± 6.9	0.0 ± 0	28 ± 21	0.0 ± 0	0.0 ± 0	0.0 ± 0	0.0 ± 0	0.0 ± 0	0.0 ± 0	0.0 ± 0	0.0 ± 0	0.0 ± 0	90.5 ± 9.5	86.9 ± 3.6													

(a) See Table 3-2 for site names

(b) Sampling periods for the summer campaign are 0400-0500, 0600-0700, 0800-0900, 1100-1200, 1300-1400, and 1500-1600 PST between 6/21/07 and 9/1/07

Sampling period for the fall campaign are 0500-0600, 0700-0800, 0900-1000, 1200-1300, 1400-1500, and 1600-1700 PST between 11/1/07 and 12/1/07

(c) Source Contribution Estimates and Uncertainties

APPENDIX D

SUMMARY OF SCAQS AMBIENT GASEOUS, AEROSOL, AND NONMETHANE HYDROCARBON DATA BASE MNEMONICS

Table D-1
SCAQS Data Base Structure for Gaseous and Aerosol Concentrations

<u>Field</u>	<u>Name</u>	<u>Data Type</u>	<u>Width</u>	<u>Explanation</u>
1	SITE	Character	4	Sampling site. "ANAH" = Anaheim. "AZUS" = Azusa. "BURK" = Burbank. "CELA" = Downtown Los Angeles. "CLAR" = Claremont. "HAWT" = Hawthorne. "LBCC" = Long Beach. "RIVR" = Rubidoux. "SNIC" = San Nicolas Island.
2	DATE	Character	8	Sampling date.
3	DURATION	Character	2	Sampling duration, in hours.
4	PERIOD	Character	2	Sampling period, hour beginning (PST).
5	SIZE	Character	1	Particle size range. "F" = PM _{2.5} . "T" = PM ₁₀ .
6	MTGC	Numeric	10.4	Mass, $\mu\text{g}/\text{m}^3$.
7	MTGU	Numeric	10.4	Mass uncertainty, $\mu\text{g}/\text{m}^3$.
8	CLIC	Numeric	10.4	Water Soluble chloride, $\mu\text{g}/\text{m}^3$.
9	CLIU	Numeric	10.4	Water Soluble chloride uncertainty, $\mu\text{g}/\text{m}^3$.
10	HN3C	Numeric	10.4	Nitric acid, $\mu\text{g}/\text{m}^3$ as HNO ₃ .
11	HN3U	Numeric	10.4	Nitric acid uncertainty, $\mu\text{g}/\text{m}^3$.
12	N33C	Numeric	10.4	Denuded PM _{2.5} Nylon filter nitrate, $\mu\text{g}/\text{m}^3$.
13	N33U	Numeric	10.4	Uncertainty of N33C, $\mu\text{g}/\text{m}^3$.
14	N34C	Numeric	10.4	Undenuded PM _{2.5} Nylon filter nitrate, $\mu\text{g}/\text{m}^3$.
15	N34U	Numeric	10.4	Uncertainty of N34C, $\mu\text{g}/\text{m}^3$.
16	N3IC	Numeric	10.4	PM _{2.5} Teflon filter nitrate, $\mu\text{g}/\text{m}^3$.
17	N3IU	Numeric	10.4	Uncertainty of N3IC, $\mu\text{g}/\text{m}^3$.
18	SO2C	Numeric	10.4	Sulfur dioxide, $\mu\text{g}/\text{m}^3$ as SO ₂ .
19	SO2U	Numeric	10.4	Sulfur dioxide uncertainty, $\mu\text{g}/\text{m}^3$.
20	S4IC	Numeric	10.4	PM _{2.5} Teflon filter sulfate, $\mu\text{g}/\text{m}^3$.
21	S4IU	Numeric	10.4	Uncertainty of S4IC, $\mu\text{g}/\text{m}^3$.
22	NH3C	Numeric	10.4	Ammonia, $\mu\text{g}/\text{m}^3$ as NH ₃ .
23	NH3U	Numeric	10.4	Ammonia uncertainty, $\mu\text{g}/\text{m}^3$.
24	N45C	Numeric	10.4	Denuded PM _{2.5} oxalic acid impregnated filter ammonium ion, $\mu\text{g}/\text{m}^3$. Total PM _{2.5} ammonium.
25	N45U	Numeric	10.4	Uncertainty of N45C, $\mu\text{g}/\text{m}^3$.
26	N4CC	Numeric	10.4	PM _{2.5} Teflon filter ammonium ion, $\mu\text{g}/\text{m}^3$.
27	N4CU	Numeric	10.4	Uncertainty of N4CC, $\mu\text{g}/\text{m}^3$.

Table D-1 (continued)
SCAQS Data Base Structure for Gaseous and Aerosol Concentrations

<u>Field</u>	<u>Name</u>	<u>Data Type</u>	<u>Width</u>	<u>Explanation</u>
28	NAAC	Numeric	10.4	Water Soluble sodium, $\mu\text{g}/\text{m}^3$.
29	NAAU	Numeric	10.4	Water Soluble sodium uncertainty, $\mu\text{g}/\text{m}^3$.
30	TCTC	Numeric	10.4	Total carbon, $\mu\text{g}/\text{m}^3$ as pure carbon.
31	TCTU	Numeric	10.4	Total carbon uncertainty, $\mu\text{g}/\text{m}^3$.
32	OCTC	Numeric	10.4	Organic carbon, $\mu\text{g}/\text{m}^3$ as pure carbon.
33	OCTU	Numeric	10.4	Organic carbon uncertainty, $\mu\text{g}/\text{m}^3$.
34	ECTC	Numeric	10.4	Elemental carbon, $\mu\text{g}/\text{m}^3$ as pure carbon.
35	ECTU	Numeric	10.4	Elemental carbon uncertainty, $\mu\text{g}/\text{m}^3$.
36	NAXC	Numeric	10.4	Sodium, $\mu\text{g}/\text{m}^3$.
37	NAXU	Numeric	10.4	Sodium uncertainty, $\mu\text{g}/\text{m}^3$.
38	MGXC	Numeric	10.4	Magnesium, $\mu\text{g}/\text{m}^3$.
39	MGXU	Numeric	10.4	Magnesium uncertainty, $\mu\text{g}/\text{m}^3$.
40	ALXC	Numeric	10.4	Aluminum, $\mu\text{g}/\text{m}^3$.
41	ALXU	Numeric	10.4	Aluminum uncertainty, $\mu\text{g}/\text{m}^3$.
42	SIXC	Numeric	10.4	Silicon, $\mu\text{g}/\text{m}^3$.
43	SIXU	Numeric	10.4	Silicon uncertainty, $\mu\text{g}/\text{m}^3$.
44	PHXC	Numeric	10.4	Phosphorus, $\mu\text{g}/\text{m}^3$.
45	PHXU	Numeric	10.4	Phosphorus uncertainty, $\mu\text{g}/\text{m}^3$.
46	SUXC	Numeric	10.4	Sulfur, $\mu\text{g}/\text{m}^3$.
47	SUXU	Numeric	10.4	Sulfur uncertainty, $\mu\text{g}/\text{m}^3$.
48	CLXC	Numeric	10.4	Chlorine, $\mu\text{g}/\text{m}^3$.
49	CLXU	Numeric	10.4	Chlorine uncertainty, $\mu\text{g}/\text{m}^3$.
50	KPXC	Numeric	10.4	Potassium, $\mu\text{g}/\text{m}^3$.
51	KPXU	Numeric	10.4	Potassium uncertainty, $\mu\text{g}/\text{m}^3$.
52	CAXC	Numeric	10.4	Calcium, $\mu\text{g}/\text{m}^3$.
53	CAXU	Numeric	10.4	Calcium uncertainty, $\mu\text{g}/\text{m}^3$.
54	TIXC	Numeric	10.4	Titanium, $\mu\text{g}/\text{m}^3$.
55	TIXU	Numeric	10.4	Titanium uncertainty, $\mu\text{g}/\text{m}^3$.
56	VAXC	Numeric	10.4	Vanadium, $\mu\text{g}/\text{m}^3$.
57	VAXU	Numeric	10.4	Vanadium uncertainty, $\mu\text{g}/\text{m}^3$.
58	CRXC	Numeric	10.4	Chromium, $\mu\text{g}/\text{m}^3$.
59	CRXU	Numeric	10.4	Chromium uncertainty, $\mu\text{g}/\text{m}^3$.
60	MNXC	Numeric	10.4	Manganese, $\mu\text{g}/\text{m}^3$.
61	MNXU	Numeric	10.4	Manganese uncertainty, $\mu\text{g}/\text{m}^3$.
62	FEXC	Numeric	10.4	Iron, $\mu\text{g}/\text{m}^3$.
63	FEXU	Numeric	10.4	Iron uncertainty, $\mu\text{g}/\text{m}^3$.
64	COXC	Numeric	10.4	Cobalt, $\mu\text{g}/\text{m}^3$.
65	COXU	Numeric	10.4	Cobalt uncertainty, $\mu\text{g}/\text{m}^3$.

Table D-1 (continued)
SCAQS Data Base Structure for Gaseous and Aerosol Concentrations

Field	Name	Data Type	Width	Explanation
66	NIXC	Numeric	10.4	Nickel, $\mu\text{g}/\text{m}^3$.
67	NIXU	Numeric	10.4	Nickel uncertainty, $\mu\text{g}/\text{m}^3$.
68	CUXC	Numeric	10.4	Copper, $\mu\text{g}/\text{m}^3$.
69	CUXU	Numeric	10.4	Copper uncertainty, $\mu\text{g}/\text{m}^3$.
70	ZNXC	Numeric	10.4	Zinc, $\mu\text{g}/\text{m}^3$.
71	ZNXU	Numeric	10.4	Zinc uncertainty, $\mu\text{g}/\text{m}^3$.
72	ASXC	Numeric	10.4	Arsenic, $\mu\text{g}/\text{m}^3$.
73	ASXU	Numeric	10.4	Arsenic uncertainty, $\mu\text{g}/\text{m}^3$.
74	SEXC	Numeric	10.4	Selenium, $\mu\text{g}/\text{m}^3$.
75	SEXU	Numeric	10.4	Selenium uncertainty, $\mu\text{g}/\text{m}^3$.
76	BRXC	Numeric	10.4	Bromine, $\mu\text{g}/\text{m}^3$.
77	BRXU	Numeric	10.4	Bromine uncertainty, $\mu\text{g}/\text{m}^3$.
78	SRXC	Numeric	10.4	Strontium, $\mu\text{g}/\text{m}^3$.
79	SRXU	Numeric	10.4	Strontium uncertainty, $\mu\text{g}/\text{m}^3$.
80	MOXC	Numeric	10.4	Molybdenum, $\mu\text{g}/\text{m}^3$.
81	MOXU	Numeric	10.4	Molybdenum uncertainty, $\mu\text{g}/\text{m}^3$.
82	CDXC	Numeric	10.4	Cadmium, $\mu\text{g}/\text{m}^3$.
83	CDXU	Numeric	10.4	Cadmium uncertainty, $\mu\text{g}/\text{m}^3$.
84	SNXC	Numeric	10.4	Tin, $\mu\text{g}/\text{m}^3$.
85	SNXU	Numeric	10.4	Tin uncertainty, $\mu\text{g}/\text{m}^3$.
86	SBXC	Numeric	10.4	Antimony, $\mu\text{g}/\text{m}^3$.
87	SBXU	Numeric	10.4	Antimony uncertainty, $\mu\text{g}/\text{m}^3$.
88	CSXC	Numeric	10.4	Cesium, $\mu\text{g}/\text{m}^3$.
89	CSXU	Numeric	10.4	Cesium uncertainty, $\mu\text{g}/\text{m}^3$.
90	BAXC	Numeric	10.4	Barium, $\mu\text{g}/\text{m}^3$.
91	BAXU	Numeric	10.4	Barium uncertainty, $\mu\text{g}/\text{m}^3$.
92	PTXC	Numeric	10.4	Platinum, $\mu\text{g}/\text{m}^3$.
93	PTXU	Numeric	10.4	Platinum uncertainty, $\mu\text{g}/\text{m}^3$.
94	HGXC	Numeric	10.4	Mercury, $\mu\text{g}/\text{m}^3$.
95	HGXU	Numeric	10.4	Mercury uncertainty, $\mu\text{g}/\text{m}^3$.
96	PBXC	Numeric	10.4	Lead, $\mu\text{g}/\text{m}^3$.
97	PBXU	Numeric	10.4	Lead uncertainty, $\mu\text{g}/\text{m}^3$.
98	SPSUMC	Numeric	10.4	Sum of chemical species including all chemical species except CLIC, HN3C, N33C, N34C, SO2C, NH3C, N45C, NAAC, TCTC, SUXC, $\mu\text{g}/\text{m}^3$.
99	SPSUMU	Numeric	10.4	Uncertainty of SPSUMC, $\mu\text{g}/\text{m}^3$.

Table D-2
Nonmethane Hydrocarbons in the SCAQS Ambient Data Base

CMB <u>Mnemonic</u>	Fitting (a) <u>Species</u>	Species Name	CMB <u>Mnemonic</u>	Fitting (a) <u>Species</u>	Species Name
ETHANE	*	Ethane	CHEXAN	*	Cyclohexane
ETHENE		Ethylene (Ethene)	X2MHXA	*	2-Methylhexane
ETHYNE	*	Acetylene (Ethyne)	X23MPT	*	2,3-Dimethylpentane
PROOPEN		Propene	X3MHXA	*	3-Methylhexane
PROPAN	*	Propane	X224MP		2,2,4-Trimethylpentane
IBUTAN	*	Isobutane	HEPTAN	*	n-Heptane
BUTENE		Butene	MCHEXA	*	Methylcyclohexane
X13BTD		1,3-Butadiene	X234MP		2,3,4-Trimethylpentane
BUTANE	*	n-Butane	TOLUEN	*	Toluene
T2BUTE		trans-2-Butene	X2MHPT		2-Methylheptane
C2BUTE		cis-2-Butene	X3MHPT		3-Methylheptane
X3MBT1		3-Methyl-1-Butene	X225MH		2,2,5-Trimethylhexane
IPNTAN	*	Isopentane	CHEPTA		Cycloheptane
PNTEN1		1-Pentene	OCTANE	*	n-Octane
X2M1BT		2-Methyl-Butene	X25MHP		2,5-Dimethylheptane
PENTAN	*	n-Pentane	ETBZN		Ethylbenzene
ISOPRN	*	Isoprene	MPXYLN		m,p-Xylene
T2PNTE		trans-2-Pentene	X4MOCT		4-Methyloctane
C2PNTE		cis-2-Pentene	X3MOCT		3-Methyloctane
X22MBT		2,2-Dimethylbutane	OXYLEN		o-Xylene
CYPNTA	*	Cyclopentane	NONEN1		1-Nonene
X23MBT	*	2,3-Dimethylbutane	NONANE		n-Nonane
X2MPTA	*	2-Methylpentane	NPRBNZ		n-Propylbenzene
X3MPTA	*	3-Methylpentane	METOLN		m-Ethyltoluene
HEXANE	*	n-Hexane	PETOLN		p-Ethyltoluene
X2M2PT		2-Methyl-2-Pentene	OETOLN		o-Ethyltoluene
MCPNTA	*	Methylcyclopentane	X124MB		1,2,4-Trimethylbenzene
X24MPT	*	2,4-Dimethylpentane	DECANE		n-Decane
BENZEN	*	Benzene	TCLETA	*	1,1,1-Trichloroethane
X33MPT		3,3-Dimethylpentane	FRN113	*	Freon 113
			UNIDTO	*	Total Unidentified

(a) Asterisk indicated species applied in CMB calculations.

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